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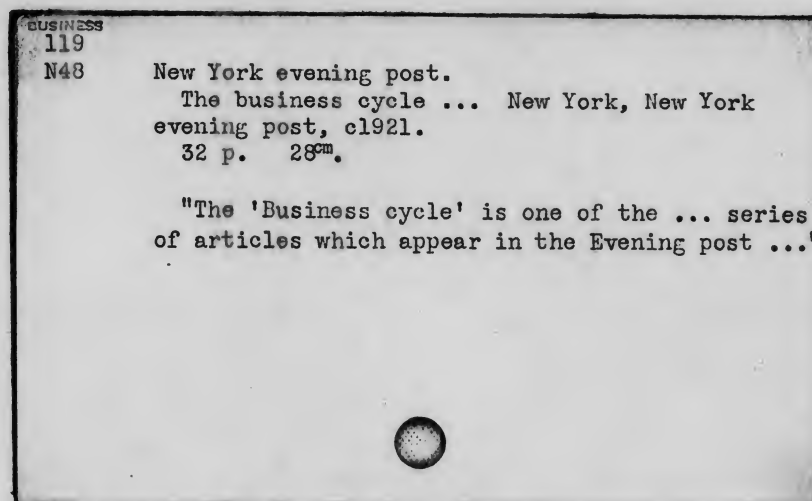
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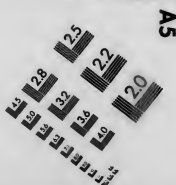
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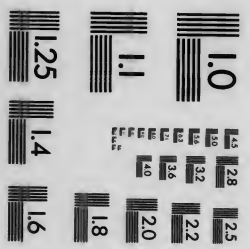
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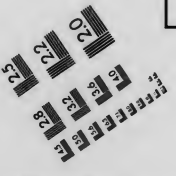


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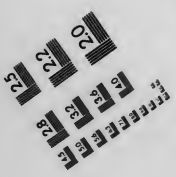


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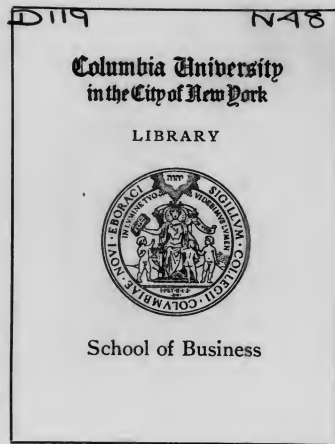
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New York Evening Post
The Business Cycle.



Roy E. Stryker

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THE BUSINESS CYCLE

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The "Business Cycle" is one of the many valuable series of articles which appear in the *Evening Post* and are received by its regular readers. These articles are reprinted now because a wide demand has exhausted the editions of the *Evening Post* containing them.



New York Evening Post
20 Vesey Street
New York City

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Prefatory Note

This important series of articles on the business cycle was published in the *Evening Post* beginning October 17. It has naturally fallen into three parts in conformity with its object. One part deals with the theory and principles of the business cycle and includes articles by such well known economists as Prof. Wesley Clair Mitchell, author of "Business Cycles"; Edmund E. Day, professor of economics, School of Business Administration of Harvard University; Edwin Walter Kemmerer, professor of economics and finance in Princeton University; M. C. Rorty, vice-president of the Bell Telephone Securities Company and recently chief statistician of the American Telephone and Telegraph Company; John E. Rovensky, vice-president of the National Bank of Commerce in New York, and Leo Wolman, chief of the research department of the Amalgamated Clothing Workers of America.

The second part demonstrates the practical application of the principles of the business cycle to the management of business. It includes articles by Clarence M. Woolley, president of the American Radiator Company, and Mark W. Cresap, of Hart Schaffner and Marx, and interviews with F. L. Lamson, treasurer of the Norwood Tire and Rubber Company; Henry S. Dennison, president of the Dennison Manufacturing Company; E. M. Herr, president of the Westinghouse Electric and Manufacturing Company; Theodore T. Malleson, export manager for the Royal Typewriter Company; Sam A. Lewisohn of Adolph Lewisohn and Sons, and the managing executive of one of the largest department stores in New York, and an officer of the General Motors Corporation.

The third part was designed to indicate the present position of the

country in the business cycle. It consists of reports by bankers, wholesale merchants, and retailers, giving the business situation in their sections and the outlook for the future.

The three parts of the series ran concurrently. The underlying purpose of the series has been to show business men that by correct economic thinking and an intelligent use of statistical material collected and placed at their disposal by various Government and private sources they can exercise a large degree of control over the course of the business cycle by forecasting the course of business.

Prof. Mitchell, Prof. Kemmerer, and the other economists show that business inevitably follows a regular course from prosperity through crisis to depression, and that from depression come revival and again prosperity. The causes leading to the different phases of the cycle and the inevitableness of the progress are clearly explained. How a wider diffusion of economic knowledge among the business community and a confirmed habit of correct economic thinking would tend to lessen the curves of the business cycle—to make the peaks of prosperity less high, but, on the other hand, to raise the level of the valley of depression—was tersely put by Prof. Kemmerer when he said, "Economic movements that are widely anticipated are thereby either prevented from taking place or modified in their occurrence."

But these statements of theory and principle would have been of little value if they had not been accompanied by the interviews with business men, showing the practical application of the principles to the management of business. These interviews have been an invaluable series of lessons to the business community on reading the signs of the times.

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millions of transactions year after year.

What Pig Iron Shows

Even these series, however, seldom throw the cyclical factor into high relief when taken in the raw state. The most striking feature of a chart showing pig-iron production (see page 60) in the United States is the rapid rate of growth from decade to decade. In a chart of American prices the outstanding features are the effects of great wars and the long-period swings in the purchasing power of gold. In a chart showing the value of the cotton crop the effects of the weather are clearer than the effects of prosperity or depression. To trace the course of business cycles clearly it is necessary to set aside the influence of such other factors as can be isolated—particularly the factor of growth and seasonal fluctuations. And after that has been done it is best to trust no single index of business activity, but to combine several of the most significant indexes into a single series.

How the effects of other factors can be excluded is illustrated by the two charts of wheat and pig-iron production. Here the growth factor is represented by a straight line about which the yearly production oscillates. The 754,000,000 bushels of wheat which it is estimated are harvesting in 1921

would have been impossible under the best weather conditions in 1890, but it is somewhat below the "normal" expectation for this year, just as the 399,000,000 bushel crop of 1890 was somewhat below normal for that year. So, too with pig iron, which has a much more rapid factor of growth. The best indication of activity in the iron trade is given by comparing the actual output of the current year, not with the output of any previous year but with the output indicated for the current year by the line of "secular trend." These deviations of the actual record of each year from the normal expectation for that year can readily be computed for various statistical series, reduced to a common denominator by comparison with their respective "standard durations," and then combined to make a single curve.

Excluding Seasonal Fluctuations

By an analogous but slightly more elaborate analysis seasonal fluctuations can be excluded. Many branches of business are regularly more active in certain months than in others.

The average magnitude of these swings can be ascertained if one has monthly figures covering a sufficient number of years. Then the normal expectation for any month is shown, not by a steadily rising line of secular

trend, but by a wavy line, which may be higher in (say) October of each year than in the following December.

These methods of analyzing business experience have been developed most fully by Prof. Warren M. Persons of the Harvard Committee of Economic Research. By applying these methods over a longer period of time than that covered by the Harvard group, Emerson W. Axe has constructed the chart showing "A Half Century of American Business," which runs across the top of this page. The statistical series used by Mr. Axe and the relative "weight" allowed to each series in arriving at the final results are as follows:

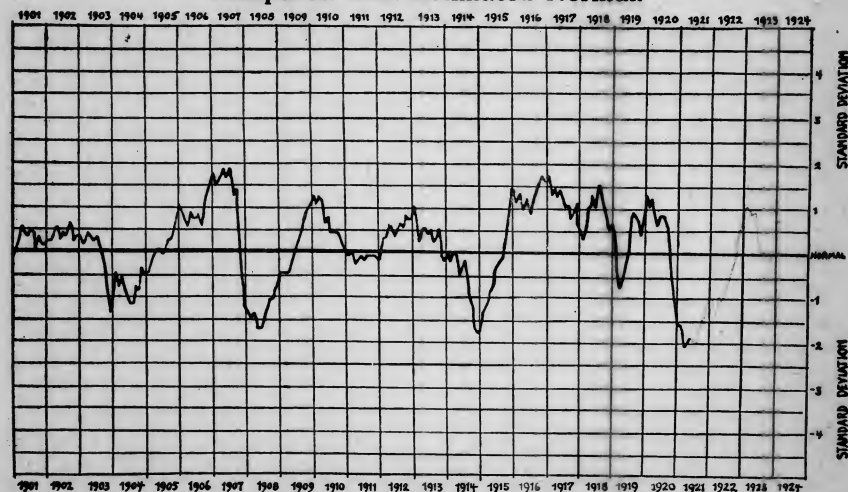
	Weights
Outside clearings	25
Pig-iron production	20
Railroad traffic	15
Failures	10
Copper production	5
Cotton consumption	10
Coal production	5
Commodity prices	10
Total weights	100

Some of these series do not extend back to the earlier years covered, indeed the line from 1877-1884 is based on pig-iron production alone; and it is not until 1903 that all eight series are available.

What the Chart Shows

This chart is a graphic summary of the cyclical oscillations of American business above and below the normal expectation for each year

A Half Century of American Business—General Business Activity Compared with Estimated Normal.



since 1877. It pictures the revival of prosperity that followed the resumption of specie payments and the bumper crops of 1879, the prosperity of the early eighties, the crisis of 1884, the revival of 1885-86, the boom of 1889-90, the slight share of the United States in the crisis of 1890, the revival that followed the extraordinary harvest in 1891, the great panic of 1893, the prolonged hard times that followed (interrupted by the brief and partial revival of 1895), the return of prosperity that began in 1897, our partial share in the European crisis of 1900, our own "rich man's panic"

in 1903, the revival that started in the autumn of 1904 and grew into the boom of 1906, the crisis of 1907, the rapid revival of 1908-9, the reaction in 1910-11, the improvement in 1912, the return of dullness in 1913 merging into the deep depression of 1914, the upward rush to a new peak of prosperity in 1916, the difficulties of maintaining business at this peak after we entered the war, the brief depression that followed the armistice, the new boom that surprised us in 1919, the turn of the tide in 1920, and the deep depression of 1921—a trifle deeper than any of its predecessors shown by the chart.

No one who studies this chart with a realization of the vast mass of practical experiences which it sums up year by year can doubt that business is really subject to cyclical oscillations. The chart gives no warrant for thinking of the business cycle as a strictly uniform sequence of precisely the same phenomena. But it does suggest that if the oscillations of the near future follow the precedents of fifty years the now vacant column for 1922 will be filled in by a line not unlike the lines of 1875, 1885, 1897, 1904-5, or 1908-9. Such a line as that of 1916 is scarcely to be expected, and scarcely to be desired.

October 18

Business Revival Expected to Gather Momentum in Immediate Future Steps Toward Recovery Are Outlined

By Wesley Clair Mitchell

Current statistics interpreted in the light of past experience indicate that American business is now in the early stages of recovery from a year-long depression. The normal expectation is that such a revival will gradually gather momentum and develop into a period of full-blown prosperity. So much was shown by the first article in this series.

But it was also shown that no two business cycles run exactly the same course. The revivals of 1879-80, of 1885, of 1897, of 1904-05, and of 1908-09 are all precedents to which we may appeal in judging the present case; but these precedents differ in important respects. The rate of improvement was much faster in some of these instances than in others. While most of these revivals were preludes to business booms, the prosperity that followed the revival of 1908-09 was neither intense nor long sustained. And there are more striking cases of disappointment: the good times brought back by the revival of 1891 were cut short by the panic of 1893, and the revival of 1895 relapsed miserably into renewed depression.

The real conclusion to be drawn from experience, then, is that each phase of each business cycle has its individual idiosyncrasies as well as its family resemblances. That conclusion estops us, from any summary application of past precedents to the present case. But it does not estop us from an analytic use of the lessons of experience. For most of the idiosyncrasies of past revivals, booms, crises, and depressions can be explained by careful study of the conditions that preceded or accompanied them. Accordingly, to learn all that we can from the past about the near future we must analyze the process of business

revival to find its general characteristics and then inquire how present conditions differ from those amid which other revivals began.

When Hard Times Come

A period of hard times is characterized by a fall of prices for commodities, securities, and labor; widespread idleness of men and machines; a shrinkage in both family and business demand for almost all classes of goods; a gradual depletion in the condition of clothing, house furnishings, and much equipment used in business; a reduction in the stocks of goods carried by merchants, manufacturers, and dealers in raw materials; a paring of production costs by increased exertions on the part of management and labor; a liquidation of business debts and a writing off of losses, a contraction of bank loans, an increase of bank reserves, and a decline in discount rates.

In the early stages of depression these conditions work cumulatively to reduce business activity. But after a period that varies in length with the duration and character of the preceding boom, certain of these conditions lead to a slight but significant increase in the volume of trade. Shoes and suits, house furnishings, and business accessories gradually wear out beyond the possibility of repair. These are examples of a wide variety of semi-durable goods which we make last longer in hard times than flush, but which we have to replace after a while, however economical our mood. When that time comes, the retail stores and supply houses note that business is picking up a trifle. Meanwhile the reduction of stocks in the hands of dealers has gone so far that merchants cannot longer supply current purchases from the wares on their shelves, but must place hand-to-mouth orders with manufacturers. The manufacturers in turn must order more materials and employ more men. The increase in wage payments gives a

new flip to consumers' demand and so reinforces the movement. Thus begins an increase in the physical volume of trade, at first very slight and growing at a slow rate; but capable, if it runs its cumulative course unchecked for a few months, of changing the face of affairs.

Certain of the other conditions characteristic of depression facilitate the incipient revival. The liquidation of old debts and the writing off of old losses remove financial obstacles. The paring down of costs enables men to make moderate profits from selling prices lower than those they could have accepted before the crisis. The high reserve ratios and the shrunken loans of the banks make them able and eager to provide credit for the conservative expansion of business, and the low rates of interest encourage borrowing.

Presently prices stiffen under the influence of recuperating demand. Then merchants anticipating a rise begin to place orders exceeding their current requirements. When manufacturers find their orders for future delivery mounting towards satisfactory totals, they contract for larger supplies of raw materials and consider the advisability of marking up prices. Confidence increases among all classes, security prices reflect the prospect of better profits, construction work of all sorts is added to the growing demand, and the revival passes over into prosperity.

Now, this is a generalized sketch of such a revival as has just started among us. A moderate increase of buying is reported from numerous sources; unemployment has been reduced a bit more than the seasonal trend will account for; wholesale prices have stiffened in many lines, and the most sensitive index numbers are rising slowly; "sentiment" is less that they could get the credit they needed under crisis conditions. The device of issuing clearing house loan certificates was an ineffective measure

peessimistic. All this conforms to the general rule of revivals. But what are the peculiar circumstances of the time that will give this movement its special features, making it rapid or slow, vigorous or feeble, prolonged or brief? That question is hard to answer because many of the data on which an intelligent judgment might be based are not yet available. Still we are not altogether in the dark.

First, the banking situation is peculiar. The depression has been exceedingly severe, but the crisis immediately preceding it was very mild in comparison with American precedents. There were no spectacular failures in 1920, no runs on great banks, no restrictions on the withdrawals of deposits, no moratoria, no closings of stock exchanges. Embarrassed concerns were not forced to go into bankruptcy if they could be saved.

While the number of failures increased, it did not reach half the average number of 1913-15. On the face of the statistical record there are few conspicuous signs of the enormous stress to which the financial machinery was subjected.

Of course, this ability of the new banking organization to withstand the stress is most reassuring. But the reassurance counts more when we are thinking of the next crisis than when we are thinking of the present revival. For our old banking system served very well in periods like the present. If the liquidation of financial obligations was destructively violent, it was at least thorough. Weak concerns died promptly; they were not nursed through a lingering illness in the hope that they might eventually recover.

The present period of liquidation has certainly been long, but we do not know whether it has been thorough. Only time can tell whether the method of "panic financing" which we have practiced for the first time has put us in as good a position to recuperate as the more drastic methods into which we used to be forced by the lack of a

centralized reserve. Bank loans have shrunk, reserve ratios have risen, and discount rates have declined, but the present discount rates are high in comparison with those which prevailed, say, in the summer of 1908. And there may be still a large number of final concerns on the verge of a final collapse. Probably there is no one man in the country who really knows just how thorough the liquidation has been.

Price Decline Uneven

A second peculiarity is the unevenness of the violent fall in prices which has characterized the depression. The prospects of a revival depend in large part upon such an adjustment among the prices of transportation, labor, raw materials, and finished commodities as promises at least moderate profit margins in all the main branches of business.

The price readjustments made during a period of depression, it is true, never restore quite the same relations among different classes of goods as prevailed in the preceding period of prosperity. It is true also that the comparisons we are nowadays making with the pre-war prices span a long period—usually the eight years since 1913. It would be foolish to expect any close approach to the pre-war alignment. Yet the discrepancies revealed by every exhibit of the figures raise doubts as to whether the present price situation is even moderately stable. It seems probable that further readjustments must be made.

Once more, American revivals have often been prompted by a keen foreign demand for our goods. Such was notably the case in 1873, 1891, and 1897. We can expect little such outside help at present. Severe as our depression has been, the United States is in a far more fortunate condition than any of the great foreign countries, financially and indus-

trially. Recuperation in this country may help business to revive in Europe; but a lively export demand seems unlikely to come to our aid. And foreign trade has become a more important factor in American business than it was before the war.

The uncertain political factor also bulks uncommonly large at present. In some measure revival waits upon the settlement of the tax problem, the tariff problem, and the financial relations between the Government and the railways, to mention only the chief issues in suspense.

The most encouraging of the peculiarities of the present situation is the latent demand for construction of which we have been talking since the armistice was signed, but which has not yet materialized to any large degree. We have not had an active building year, counting construction in physical units instead of dollars, since 1916. A great deal of building, painting, road-making, and the like needs to be done, and once business conditions become favorable work should begin on a liberal scale.

What will be the net resultant of all these conditions upon the progress of the revival is not clear. If the financial house cleaning has not been thorough we may repeat the experience of 1892, when a promising expansion of business was checked by a sudden renewal of suspended liquidation. If the price readjustments are not even enough to enable most industries to share in the revival we may repeat the disappointment of 1895. But it seems probable that neither of these dangers will become disasters. As for foreign trade, we can attain a considerable increase of activity with exports at their present level. The political problems must reach solutions of some sort before long, and the solutions are not likely to be as bad as the present uncertainties.

All in all, then, the chances seem to favor the further progress of the revival in the immediate future. But this progress is likely to be slow at least for some months to come.

October 19

Effective Means of Lessening Severe Business Depression Possible Control of Business Fluctuation a Need

By Wesley Clair Mitchell

The depression from which we are beginning to emerge has had one most hopeful feature—the development of a constructive interest in the question whether such periods cannot be prevented from recurring in the future, or at least be rendered less severe.

The long history of business cycles, roughly one century in the United States and two centuries in England, does not prove that the problem of

control is hopeless. On the contrary, this history supports the belief that carefully devised measures taken in season may accomplish substantial results. Indeed, substantial results have already been achieved in controlling one phase of the business cycle.

Crisis in England formerly grew into panics. But their centralized banking system enabled the English to develop a plan of "panic financing" which has proved effective in every crisis since 1866. The vital feature of this plan is giving practical assurance that every business enter-

prise not actually insolvent can, by paying a stiff rate of interest, obtain bank loans to meet its maturing liabilities. This assurance sufficed to prevent the spread of panicky fears among business men, however dark the prospect in other respects. A marked change in the character of British business cycles was produced by this new policy. Crisis lost much of their dramatic intensity, and the subsequent depression became the matter of chief concern.

In this country the organization of the banking system long made it impossible to assure solvent borrowers

in comparison with the suspension of the law limiting the "unsecured" circulation of the Bank of England. Consequently, we had real panics in 1873, 1893, and 1907. But the establishment of the Federal Reserve system in 1914 put American banks in a position to help solvent yet embarrassed business houses as effectively as the English banks help their clients. Hence our crisis in 1920 was much more like the crisis of 1907 in England than like the crisis of 1907 in this country. Our first application of this plan of panic prevention may prove to be less skillful in some details than British practices based on half a century of experience; but if we have made mistakes, they are mistakes by which we shall profit on the next occasion.

We have learned, then, how to mitigate the violence of crises. The next step is to devise methods of mitigating the severity of depressions. Several such methods have been proposed. Though not yet tried on a large scale, some of the proposals rest on a careful study of experience and merit thorough consideration.

Concerning one line of action there is no room for doubt. The more men of affairs understand the cyclical factor in business activity the more they plan to take advantage of the opportunities it presents for gain and to avoid the losses it threatens, and the better the data at their disposal for judging business prospects the less violent will oscillations become. When a future danger is so clearly perceived that every one prepares to meet it, that danger seldom proves serious.

A notable illustration is afforded by the extraordinary fall of prices in 1865. Every one expected that when the Confederacy collapsed the credit of the Federal Government would improve, that the United States notes which were the standard money of the day would rise in value, and that prices would tumble. Of course this anticipated fall of prices was a grave danger against which every business had to provide. Nearly all business men made such provision. The anticipated fall began in January, 1865, and it proved more violent than any previous decline. Yet the fall of prices passed off without producing a severe financial stringency or a long depression. No troubles occurred comparable with those which accompanied the corresponding drop of prices last year, although the banking system was by no means so well organized to withstand a strain in 1865 as it was in 1920.

Every measure which aids the business public to foresee coming dangers, as they did in 1865, will prove helpful. In particular the statistical data which summarize current conditions should be, and can be, rendered far more useful than they are at present. Gaps in our knowledge should be filled in by compiling fuller statistics of stocks of goods on hand and on order, of manufacturing output, of construction, of numbers of men at work part time, full time, and overtime, and of their earnings, of the leading factors affecting cost of production and fluctuations in demand. Not less important is the effort to make the sometimes bewildering array of figures more intelligible and more significant. Finally, these more com-

plete data in more intelligible form should be made readily accessible to all men minded to use them. Happily, there are many active workers in this field—Government agencies, or rather the Department of Commerce which the Department of Commerce is especially progressive at present. business associations, scientific societies, forecasting agencies, statistical departments in corporations, commercial periodicals, newspapers, and individual statisticians. We can count upon a gradual improvement both in the data and in the use made of them.

A second proposal is the long-range planning of public works, municipal, State, and Federal. Much work of this sort, it is held by competent judges, can be accelerated for a year or two or postponed for a similar period without serious detriment to public interests. By systematic planning governments might diminish the amount of work they put to contract in years of great activity and increase the employment they provide for labor and capital in dull years, thus reducing the intensity of both boom and depression. Besides its other advantages, this plan has financial promise, since the cost of construction work is subject to a wide swing between the crest of prosperity and the trough of depression. Estimates made in this country and in England agree in indicating that the amount of work adapted to allocation in this way runs high in the millions. It is obvious that every dollar paid out in hard times would give rise to demand for goods on the part of contractors and their employees. This plan is by way of being put into operation on a small scale. In July, 1917, Pennsylvania created an Emergency Public Works Commission to provide for the expansion of public works during periods of unusual unemployment. California has enacted a similar law this year. Both experiments should be followed with attention.

The Wisconsin Legislature has before it another plan—the Huber unemployment prevention bill. The theory of this bill is that the cost of unemployment should be treated as a fixed charge upon industry, and that if manufacturing plants which show wide fluctuations in the number of men on their payrolls are forced to pay higher insurance premiums than the plants with steadier records they will soon devise methods of stabilizing their working forces. This theory is supported by the effects of legislation compelling employees to carry industrial accident insurance—legislation which has put a premium upon accident prevention and, it is claimed, reduced the cost of accidents to employers. The Huber bill creates a mutual insurance company which all manufacturing establishments in the State must join, and to which they will pay premiums varying with their unemployment rates. The insurance company is to be managed by the employers, under rules approved by the State Industrial Commission. To be eligible for compensation for unemployment an employee must have worked at least half of the preceding year within the State and must have been laid off by his employer for no fault of his own. The rate of compensation is \$1.50 a day for adults and 75 cents for workers under nineteen years of age. The maximum

period for which unemployment compensation can be drawn is six weeks for the first three years of the act's operation and thirteen weeks thereafter. If this bill is passed by the Wisconsin Legislature it will provide us with another significant experiment.

Meanwhile certain corporations have initiated schemes of insuring their employees and stockholders against effects of depression. For example, Deering, Milliken & Co. set aside two sinking funds to guarantee a minimum rate of return to both capital and labor. Operatives are paid current wages and investors are allowed 6 per cent interest on their capital. When current income exceeds what is necessary to meet these charges, 15 per cent of the excess earnings is put into the sinking fund for capital and 15 per cent into the unemployment guarantee fund. If any profits remain after the sinking funds have been provided for the surplus is shared equally between capital and labor. The capital sinking fund is drawn upon to make up any deficits below the 6 per cent interest rate in lean years. The unemployment guarantee fund is used to provide half pay for the operatives during periods of unemployment. A somewhat similar scheme has been adopted by the Dennison Manufacturing Company and another method of attaining the same end is being tried by the garment manufacturers in Cleveland. The latter employers agree to provide at least twenty weeks of full-time work in each half year. If they fail to provide this much work they agree to pay two-thirds of the wages that would have been earned in the period of idleness, with the proviso that their payments for time lost shall not exceed 7½ per cent of the payroll. This plan obviously offers a strong financial incentive to keep the workers employed.

Besides these direct schemes for reducing the extent or mitigating the hardships of unemployment, various monetary and banking reforms are advocated to reduce the violence of the cyclical oscillations to which business is now subject—further centralization of the banking system, stabilizing the dollar, raising interest rates earlier or more rapidly in periods of prosperity, and the like. Into the intricate arguments for these proposals it is impossible to go here. But one point should be emphasized. Nearly all the well considered schemes for controlling the business cycle, whatever their line of attack on the problem, agree in this feature—that the remedy is to be sought by shifting part of the excess of the "boom" into the period of depression. It follows that the best time for effective preventive action comes before activity has reached that wasteful intensity which produces business stresses and brings on a crisis. And the best time to formulate a wise preventive policy is a time like the present, when the ill of depression are fresh in mind and when the problem can be studied with the necessary care.

This consideration makes especially welcome the report that the President's conference on unemployment has appointed a special committee to canvass the merits of the various proposals for preventing or mitigating future periods of business prostration.

October 20

Cycle in Industrial Output Revealed by Production Records Extraordinary Fluctuations Due to Accidental Temporary Causes Not Important

By Edmund E. Day

Professor of Economics, School of Business
Administration of Harvard University

Business men need no reminder of the prevalence of fluctuations in industrial output. Recently radical curtailment has been the general order of the day. Employees have been placed on abbreviated schedules when not actually discharged; plants have been operated on part time when not completely closed. Output has been at a minimum. Yet as recently as the winter of 1919-20 opposite conditions prevailed. Manufacturers were then employing every available means to increase production. Workmen were hired overtime to tend machinery driven at top speed. Production was at a maximum.

Though variations of this sort form part of the universal experience of modern business enterprise, their nature and significance are rarely understood. Fundamentally, fluctuations of industrial output are an integral part of the business cycle. Business conditions at one stage of the cycle stimulate, at another stage enervate, efforts to increase production. The ups and downs of industrial output are essentially cyclical.

The character of this cycle may be observed in the production records of any industry for which continuous data are at hand. In the United States the iron and steel trade provides just such a record. In the accompanying diagram on another page the monthly production of pig iron is shown graphically for the eighteen-year period from January, 1904, to September, 1921. (Chart 1).

Examination of the graph discloses four distinct varieties of movement: (1) Sporadic disturbances, as in January-February, 1918, and October-November, 1919; (2) a general upward trend running through the entire period; (3) a typical seasonal variation, under which the production of one month—e. g., October—tends to be greater than that of another month—e. g., July; (4) a cyclical movement, showing now a crest, now a trough, in aggregate production within the industry.

Erratic Movements Unimportant

In the study of the business cycle erratic movements may be dismissed with little comment. It is enough to know, for example, that the heavy decline in pig iron production in January-February, 1918, was the direct consequence of the order of the

United States Fuel Administrator closing for thirteen working days during these two months in States east of the Mississippi all industrial plants not at work on Government contracts. The consequent sudden drop in pig iron production was merely a pause in the course of the cycle. Apparently it had no decisive influence. The same was true of the precipitous fall of production on account of the steel strike in October and November, 1919. At the time of their occurrence these fortuitous disturbances may entirely conceal the true course of the cycle. In retrospect they appear as nothing more than interruptions of the underlying cyclical movement of production.

The general trend disclosed by the graph reflects the normal growth of the industry from 1904 to date. This normal growth justifies the expectation of a substantially larger output in 1921 than in 1914. Another industry might exhibit an entirely different long-time tendency. Thus the production of beehive coke shows a persistent downward movement since 1909, the result of competition from by-product ovens. Fluctuations in the output of any industry occur around the level determined by the prevailing trend. This may be upward or downward, or of no discernible inclination, but the possibility of long-time tendencies must be recognized and the effect of persistent growth or decline allowed for in the interpretation of current records of production.

Seasonal variation appears in the characteristic differences of output for different months of the year. Thus typically, March shows much greater pig-iron production than February. In part, this divergence is nominal, and arises not from a change in the activity of the trade but from the larger number of working days in March. Beyond this influence of the calendar, however, lies a real seasonal movement of trade activity. Spring and fall in the iron and steel industry show greater production than winter and summer. Seasonal variation thus accounts for some of the lesser movements appearing in the chart of pig-iron production.

Existence of the Cycle

When all necessary allowances have been made for fortuitous disturbances, long-time tendencies, and characteristic seasonal variations, there remains a strong wave-like movement in the production of pig iron from 1904 to date. The chart serves to throw this movement into bold relief. Even a cursory study of the records affords convincing proof of the existence of

a cycle of production in the iron and steel trade.

The cycle is not peculiar to this industry. True, it is more easily observed in the case of pig iron production, partly because of the nature of the trade, partly because of the excellence of the statistical record. But similar fluctuations appear in the records of other fundamental industries wherever the data are available. Thus the volume of cotton manufacture is represented since 1912 by raw cotton consumed in the manufacture of cotton goods. The series, despite somewhat greater month-to-month deviations, exhibits unmistakably the same cycle as pig iron production. Numerous other series show the same phenomenon. In particular, the universality of the cycle may be observed in a general index of the volume of manufacture as a whole for the period from January, 1913, to July, 1921.

This index, recently developed by the Harvard University committee on economic research, is based upon series representing eight important groups of manufacturing industries. The representative character of the groups is indicated by their basic products: (1) iron and steel; (2) lumber; (3) paper; (4) leather; (5) petroleum; (6) textiles; (7) foodstuffs; (8) tobacco. Indices of the volume of manufacture are developed for each one of these industrial groups, and these eight group indices are in turn combined into the index for manufacture as a whole. The index is shown graphically in Chart II.

The index registers clearly the cycle through which manufacture has passed in this country since the signing of the armistice. The general slump which opened the period had run its course by March, 1919. From the spring of that year to March, 1920, there was a strong upward movement impeded, but not reversed, by the steel and soft coal strikes of the fall and the railroad congestion of mid-winter. April, 1921, witnessed the turn of the tide. From then until October there was a gradual curtailment of industrial output; and in November and December, sudden and drastic contraction. The opening of 1921 found manufacture generally at a low level. It remained there during the ensuing six months, unmistakable gains in some lines being offset by heavy losses in others. July showed the lowest output of any month during the cycle. Available data for August record a definite improvement, and the index for September promises to rise distinctly above 80 per cent of the 1919 monthly average. An upward movement seems clearly under way.

Careful examination of the cycle of

industrial output suggests a number of provisional conclusions. In the first place, it is apparent that the length of the wave-like movement is not exactly the same from one cycle to another. Unequal intervals elapse between the periods of maximum output, as well as between the times of most extreme lethargy. The cyclical character of the fluctuations is unmistakable, but the movement obviously is not of a mechanical sort.

Period of Depression Shorter

Second, it may be noted that the period of industrial activity tends to be of longer duration than the period of depression. Output seldom remains below normal continuously for longer than a year and a half. On the other hand, production has been well above normal continuously for periods as long as two or three years, not to mention the period of practically four

years due to the incidence of war demands.

In the third place, comparison of the data indicates that the timing of the phases of the cycle differs widely from trade to trade. One industry will be already experiencing reaction, while another seemingly enjoys complete prosperity. Thus, as early as May, 1920, the slump had begun in the textile trade. It was not until the following November that production in the iron and steel industry showed a marked decline. Whether these relationships of the different trades are regular and persistent only further investigation will determine, but it is already evident that the phases of the cycle are not at all simultaneous throughout the industry, but are diversely timed.

Finally, it seems clear that there is wide variation in the amplitude of fluctuations in different industries. The iron and steel trade is subject to extreme disturbances. The range

between maximum and minimum pig-iron production is much greater than the range between maximum and minimum cotton manufacture. The fluctuations of woolen and worsted manufacture also seem to have a much greater amplitude than those of cotton. Other industries, such as tobacco manufacture, meat packing, and flour milling, show narrower variations than the textiles.

Despite these significant differences in the various groups of industries, the pervasiveness of the cycle is clear. The ups and downs of industrial output are not to be charged to monetary and financial systems nor to political administrations. At critical junctures governmental action may hasten industrial movements of a fundamental sort. But the cycle runs its course under varying financial conditions and with little reference to the fortunes of political parties. It constitutes one of the underlying influences to which modern business enterprise is ever subject.

October 21

"We Mustn't Go It Blind Any More"

By John Palmer Gavit

"Something in particular must have sent you out on the Boston Post Road in Norwalk in the spring of 1920 to count the spare tires on the rear ends of automobiles and see the bottom falling out of your own business. What was it?"

"A hunch."

"Yes, but hunches don't come out of nowhere. Was your business falling off?"

"No. It seemed to be growing. Everything looked all right."

"Then whence the hunch?"

F. L. Lamson, treasurer of the Norwalk Tire and Rubber Company, pushed the papers aside on his desk, looked out from under his heavy black eyebrows, and closed one eye, not with a wink, but as one who wonders whether he'd better tell.

"In order to answer that question I've got to go into a private family matter. Yes, home psychology."

"Isn't this a time for all the cards face up? I guess domestic psychology lies at the bottom of all this business of business cycles, in the last analysis."

"Well, all right, here goes. In 1919, when everything looked fine, didn't you sit with groups of men who pulled out the flaps in pockets to show the date of the suit and boasted about the age of their clothes? Or turned up the soles of shoes to show you the holes in them?"

"I did. I can do it yet."

"That was men. Men stopped buying, way back in 1919. Women didn't. My own wife didn't. She made her trips to New York pretty much the same. Prices were high, and the bills we paid showed it."

When the Women Stopped Buying

"But in the spring of 1920 the bills, with the same high prices and everything going apparently full speed, began to fall off. My friends were notice-

tail-ends of automobiles, the manufacturer has now no means of knowing promptly, accurately, or perhaps even generally, that the buying public is 'backing up' on him."

"Exactly."

"What did you do?"

"Came right over here and got busy. My colleagues saw instantly what it meant. We acted accordingly; slackened up, got rid of surplus raw material and generally prepared ourselves for the storm."

"Of course, lots of other manufacturers did the same kind of thing, on information and hunches, each in his own fashion. Lots of them didn't. The destructive force of the smash when it came affected the individual concern in pretty direct ratio to the accuracy and sufficiency of the information it had in advance."

There was a lot more of the long and utterly candid talk with which Mr. Lamson favored me; but it all had to do with the vital necessity for the ends of intelligent manufacturing and planning for good times and bad, of prompt and accurate information on the subject of business conditions, trends, and tendencies.

We Mustn't Go It Blind

"We mustn't go it blind, or depend upon guesswork and hunches and inspirations," said Mr. Lamson. "We must know."

"Take orders for automobiles, for example. Here came in tidings of several inquiries for cars that couldn't be filled because everybody was oversold. A man had gone to one agency; he wanted a car right away. Couldn't get it under three months, or six. Nothing doing. He went to another. Same answer. And to another, and another."

Finally he did manage to get one—one, mind you. That was all the cars that that man wanted.

"But back to each of the some offices went the news that requests were pouring in, and each concern got the push of an apparent big demand. The salesmen, keen for commissions, played it—sincerely enough—for all it was worth, and the factories whipped up production. Information—there wasn't any. Yet if the information that each concern had about its own

business had been gathered, collated, and put forth promptly and clearly by a man who would have saved us, in a considerable degree, from being misled.

"Had such facts, properly set forth, been available in 1919 and 1920 the wave of profiteering that almost rocked the foundations of our Government by creating widespread unrest and dissatisfaction among all classes, and circulation—or anyway the acceptance—of the false information under the guise of statistics coming from

sources interested in the spread of just such material, which led the industries of the nation into a wild race of expansion and an orgy of production, leading unfailingly to a national depression and wastefulness and sacrifice of capital and an unprecedented record of unemployment, would undoubtedly have been avoided."

Mr. Lamson then went on to outline his definite plan for gathering and exhibiting such information. This will be set forth in another article to-morrow.

October 22

"What Shall We Do, Then?"

The response of readers of the *Evening Post* to the discussion of fundamental economic law underlying the fluctuations of prosperity and depression, which has been a feature of this newspaper during the past week, shows the keen desire of business folk of all classes to gain a clearer understanding of the factors which govern success.

Wesley Clair Mitchell's articles introducing the series of discussions to which other students of economics and of business in the concrete will hereafter contribute have painted a large background for the specific opinions of bankers and business men. We think he has established to the understanding of any reasonable reader the fact of the "Business Cycle." Recognition of this fact, and understanding of the factors involved in its concrete demonstrations, based upon accurate statistical information promptly and regularly published, will assist discerning business men in adjusting their affairs to the ebb and flow, and even in modifying the extremes of the ebb and the flow by intelligent co-operative action.

The reader, however, sometimes

turns from studies like these, convinced of the general principles, but with an unsatisfied mind, because he does not see what they mean to him individually, in terms of to-day's definite action.

"This is all very well," he says to himself, "but I want to know what it means for me, here and now. What can I actually do to fit my own business into the situation that all these fellows are talking about? What shall I do, personally, next?"

We think that the discussion of general principles and the detailed reports and opinions which the *Evening Post* has thus far published make clear at least four things that any business man can do forthwith, and that they are the right things to do:

(1) Study your business situation as it exists right now. Determine as nearly as you can the conditions of supply and demand for your product and raw materials in relation to the general curve of your industry and of general business.

(2) Assuming that you are fairly well liquidated and ready to take advantage of the slowly but steadily improving conditions, don't wait any longer, but enter now upon the extensions, alterations, repairs, and

additions to equipment that you are reasonably sure will be needed in the next few months. The position in general, with some exceptions, is advantageous in respect of both wages and prices of materials. And you will incidentally be helping to lessen unemployment and accelerate the general revival.

(3) Watch the markets for raw materials used in your industry, having in mind, not some abnormally low level of prices, but the general average level at which under normal conditions you can use them profitably. Make reasonable contracts on that basis for future delivery as your business gains momentum. This is no suggestion of an intensive "buying week" or anything of the sort. Use your judgment and add courage.

(4) With the cooperation of your banker, extend credit judiciously, so that those through whom you have to distribute your product can get under way also.

Without any desire to whip up business or industry beyond the careful, really conservative, sane rate which present conditions justify, we believe that the time for hyper-caution and foreboding has passed, and that now is the time to act, to move forward with courage.

Things Business Should Know

By John Palmer Cavit

(This is the conclusion of an interview with Mr. F. L. Lamson, treasurer of the Norwalk Tire and Rubber Company, of Norwalk, Conn., about the necessity of reliable and timely information concerning manufacturing and business conditions. The first article was published in the *EVENING POST* yesterday.)

"Coming down to brass tacks," said Mr. Lamson, "it is easy enough to say that if we had known all about the state of affairs in industry before the storm broke upon us last year we not only could have lowered our gears and set our brakes for the steep down-grade ahead, but could even have gone far to avoid the steepness of the grade altogether. We didn't know—that's no secret.

"The question is, not whether we ought to have known, but what we ought to have known. And is it possible to know that? Is the information to be had, and if so, how can it be made practically available in

simple form for the manufacturer or business man with intelligence to see 2 and 2 making 4, so that he can understand it and act upon it?"

"If you were to come in here any time and ask me:

"What is the normal production in your establishment?" I could tell you instantly, and I would. There's no great secret about it; men talk such things over at first meetings, on the commuters' trains, and wherever they meet.

"And I would just as quickly answer the other question:

"What is the present production with reference to normal? At what percentage of your normal capacity are you running now?"

"Very well; the answers to these questions, if you had them for any whole industry, would enable each concern to determine where it stood with reference to the whole industry. And if you had the answers totaled for all the industries of the country you would come pretty near knowing how things were going generally.

"It is essential in the planning of

purchases and production—to know also the consumption of raw material, raw materials on hand, the amount of finished product produced, finished product on hand, and the principal product sold or distributed during a given period.

"These details of his own situation the individual manufacturer might not be so ready to disclose; but if he knew the general situation in these respects throughout his particular trade it would be of the utmost value to him, and to the whole industry. Then supply would be more nearly harmonized with demand; the panicky buying and selling now in vogue would be lessened if not entirely eliminated; inefficient and impulsive production and selling policies would be more quickly and easily detected."

Monthly Reports of All Industries

"Such information would have to be very much up-to-the-minute," I ventured. "The statistical machinery moves slowly, and—"

"It doesn't move slowly in the reports of the wheat and cotton crops, does it? Don't you newspaper men get those reports by telegraph, and right up to date?"

"Yes, we do. Men wait on tip-toe, and try to steal the information in advance."

"Well, I would have this information gathered and made public not later than the 15th of each month for the preceding month. That, I believe, would be often and prompt enough for the planning of industry and general trading based upon an accurate knowledge of the true conditions in each industry and in all industries combined—for the industries are interrelated to a very great extent. One should know as well the general background of industry as a whole.

"Timeliness is as essential as are the facts themselves."

"Government is the only agency that can get such information," I suggested.

"I think so. Certain people have favored the gathering of this information directly by or with the assistance of the trade associations; but I personally foresee reluctance on the part of individual concerns to expose the innards of their business to their

competitors. I could give you some particulars of experience to support that idea, but—"

Scope of the Information Needed

"What sort of questions would you have asked—whatever it was that asked them?"

"The monthly report that I would request from each concern would cover these points:

(1) Principal and secondary products, respectively.

(2) Number of employees, male, female, children under sixteen, and grand total. Proportion of these, male and female, who are "common laborers."

(3) At what percentage of total maximum capacity is the plant now operating? (This should be estimated on the normal production of the plant, assuming all conditions favorable to production.)

(4) If production is not maximum capacity, what are the principal causes or limiting factors?

(5) Principal raw material consumed week ending "last pay day"—name, unit, quantity.

(6) Principal raw material on hand "last pay day"—quantity.

(7) Second principal raw material consumed, week ending "last pay-day," name, unit, quantity.

(8) Second principal raw material on hand, "last pay-day," quantity.

(9) Principal finished product produced week ending "last pay-day," unit, quantity.

(10) Principal finished product on hand "last pay-day," quantity.

(11) Second principal finished product produced, week ending "last pay-day," name, unit, quantity.

(12) Principal products sold last calendar month, quantity.

(13) Second principal products sold last calendar month, quantity.

(14) What percentage of production last month was on principal product?

"The answers to these questions would be the reasonably accurate right away; but one of the effects of such reports would be to acquaint some industrial managements more closely

with their own conditions. Accuracy would steadily increase. Business men would quickly learn anything they are not minutely acquainted with now.

It Would Disclose Unemployment

"The number of employees on the factory payroll is the most accessible record in any plant. Suppose there were but three plants in a given industry, and that their answers at the end of a certain month showed—(Mr. Lamson quickly sketched a table):

Per cent of capacity.	Number of employees working.	Normal employment.
85	700	2,000
85	650	1,000
85	850	1,000

"Instantly you would see that the industry at full capacity would employ 4,000 persons; that the 2,200 represented an average of 55 per cent of the normal. And you would see 1,800 as the number of unemployed at that moment in that industry.

Cost of "Labor Turnover"

"We figure that every new employee brought into our industry costs us \$50 to train. That's one of the things that running below capacity and unemployment means for the industry; it points straight at the very great loss to industry of the "labor turnover." I don't know what the education-cost of new employees is in other industries, but there can be no question of its force as an argument for reducing "seasonal unemployment."

"And the grand total of these figures for all industries would tell us about total unemployment in industries—what we now guess at.

"Such a plan as I have outlined would (1) make available planning statistics sufficiently complete, comprehensive, and authoritative; (2) it would put producers, sellers, buyers, and the public all in possession of the same fundamental facts, consequently placing each interest in the same relative position for trading. And (3) it would establish a confidence that would contribute to a generous support on the part of producers in securing, disseminating, and continuing permanently such information."

October 24

Bankers Can Check Depressions In Advantageous Position to Know the Facts of Business, They Can Take Action to Lesson the Bad Effects of Fluctuations of the Cycle

By Edwin Walter Kemmerer.

Professor in Economic and Finance in Princeton University.

That there exist in the United States and other advanced countries pronounced cyclical movements in business with a normal periodicity of three

or four years is a proposition supported by such an abundance of evidence as to be accepted by most students of finance. Some of this evidence has been given in the preceding articles of this series. The general character of the cycle has been tersely defined by Wesley C. Mitchell in his

valuable book on "Business Cycles" as a process of "cumulative change by which a revival of activity develops into intense prosperity, by which this prosperity engenders a crisis, by which crisis turns into depression, and by which depression, after growing more severe for a time, finally leads to such

a revival of activity as that with which the cycle began."

There is no class in the community more vitally affected by the business cycle than the bankers; there is probably no other class in such a favorable position as they to contribute towards the reduction of the evils of the cycle.

These evils are serious. The business cycle is in fact essentially bad. It is an expression of alternating "nerves" and depression on the part of the body economic which would function more efficiently and more comfortably if it could maintain its composure. Both the banks and the business public would be better off, for example, with stable interest rates than with alternately rising and falling ones, reasonably stable security prices would be better for the banker and the public—although perhaps not for the broker or the speculator—than prices alternately rising to abnormal heights and then falling to abnormal depths; the laboring man, the business man, and the banker would be much better off if labor were continually employed at practically full time on normal wages than they are with alternating periods of labor scarcity and abnormally high wages with their accompaniments of labor inefficiency and health-destroying overtime, on the one hand, and, on the other hand, with periods of unemployment, low wages, idle capital, and all their accompanying hardships. The committee on waste appointed last January by Herbert Hoover as president of the Federated American Engineering Societies in its recently published preliminary report says: "The largest area of waste lies in the periods of slack production and unemployment, due to the ebb and flow of economic tides between booms and slumps."

What Can Bankers Do?

Even if we could realize the Utopia of eliminating all the ups and downs of the business cycle we would still be experiencing all the changes incident to a progressive economic order, and

business would still be subject to enough uncertainty to try the metal of our best business brains. The curve of business progress (except in times of war, of pronounced failures in crops, and the like) would be continually advancing—now rapidly, now slowly—but practically always advancing, and we would be through with the "roller coaster" process of reaching new heights only by a series of nerve-straining rises and falls.

As a practical proposition can anything be done by the bankers to flatten out somewhat this business cycle curve? The answer, I believe, is: "Yes, considerable can be done, and the results will be cumulative, but the accomplishments at the beginning will at best be small." What should be the line of action? It may be summed up in two words, knowledge and discounting.

The business cycle thrives on uncertainty. The more it is understood and the more widely diffused is the knowledge concerning it, the less harmful will it be. If bankers and business men should come to understand the pronounced character of the cyclical movement of the last three decades as they have been ably described by various economic writers, if they should do their part toward collecting data and in other ways improving our knowledge of the business cycle, and should keep themselves reasonably well posted as to the approximate position of their respective businesses in the current cycle, all this would result in a material flattening out of the cycle curve.

Many of the most important phenomena of the business cycle are the intimate facts of the banker's daily business, such, for example, as the changing discount rate, the movement of security prices, the varying quality of collections, the extent of loans, renewals and the expansion or contraction of lines of credit. Furthermore, the banker's business gives him a large amount of inside information concerning other kinds of business. He receives regular financial statements from his principal customers, and in other ways, through his

credit department, keeps posted concerning the developments, favorable and unfavorable, in those businesses. To protect himself he must often exercise a certain amount of control over the businesses of those to whom he grants substantial lines of credit. His counsel and advice are usually listened to with respect. To an increasing extent the banker has become a partner in nearly every important business—a silent partner nominally, but not always actually, as many business men have recently found. The banker, therefore, is in a highly advantageous position for promptly securing knowledge of the movements, tute the business cycle, while through his own operations and through his influence on the operations of his customers, he should be able to exercise a real force by anticipating and discounting the prospective movements of the business cycle. Some of the methods by which this may be accomplished will be considered in tomorrow's article on this subject.

A good illustration of how such a result has been accomplished in a similar field is given in the accompanying chart, showing the seasonal swings of sterling exchange rates in New York for 1890-1899, 1900, 1908, and for 1909-1913, respectively.

It will be noted that the fluctuations of the last period are much narrower of the last period are much narrower than those of the first period. This flattening out of the sterling exchange curve was brought about chiefly by an increasing resort to the practice of making forward contracts in exchange and by the increasing sale of finance bills so timed as to fall due when our cotton and cereal bills would be thrown on the market in the largest volume. By this process, the exchange rates in the summer were prevented from rising so abruptly or to as great heights as they otherwise would have risen, and exchange rates in the fall were prevented from falling so abruptly and to the same extent that they otherwise would have fallen. The normal seasonal swing of exchange rates was not eliminated, but was ironed down, to the great advantage of our foreign trade.

October 25

Bankers' Aid in Stabilizing Business Far-Sighted Men Can Take Action Themselves and Induce Customers to Play Safe When Facts of Business Cycle Predict Depression Coming

By Edwin M. Kemmerer,

Professor of Economics and Finance, Princeton University.

The evil effects of the business cycle would be reduced if the public could anticipate the movements that constitute the normal cycle and discount them. Economic movements that are widely anticipated are thereby either prevented from taking place or mollified in their occurrence.

Assume for example, that the evidence at a particular time shows we are several years along on the rising curve of a business cycle, that there has been no substantial liquidation

for two or three years, that speculative activity is running high on the exchanges, that prices of the more speculative stocks are rising, that bank clearings are large, that reserve

ratios at Federal Reserve banks and commercial banks are tending downward, call and short-time interest rates and Federal Reserve discount rates rising, the ratios of bank loans to deposits increasing, credit becoming more and more extended, and that commercial failures for some time have been running abnormally low, showing that little dead wood has of late been cut out of the business structure. This, for example, is a substantially correct picture of the year 1906, and of the last part of

1919, and the early part of 1920. Fundamental crop conditions at such a time may or may not be good—they are poor, so much the worse—but the other conditions mentioned would be ominous, and particularly so if they were occurring as above assumed at somewhere near the time period when according to past experience, the cycle might be expected, to be approaching its crest.

What Would Banker Do

Under such conditions what should a far-sighted and prudent banker do? The answer is the same as it would be to the question: What have the few most far-sighted and prudent of our bankers done under similar conditions in the past?

Broadly speaking, he would do a number of the following things: First of all he would probably try to get his assets in a more liquid condition. He would sell his less gilt-edged securities while the selling was good, and place the proceeds either in the most gilt-edged securities on the market—the kind that ordinarily suffers least in a period of crisis and that usually alone advances during the early part of the ensuing depression—or he might purchase with the proceeds prime commercial paper of short maturities, scattering well his risks. He would place a larger proportion of his resources in the best commercial paper of concerns outside of his own community whose businesses were of the kinds least affected by crises—concerns whose paper he would have no responsibility to renew at maturity. He would clean up his loan accounts with his Federal Reserve bank and with his correspondent banks, and strengthen his reserve position. He would get a larger proportion of his paper into short maturities and would bring pressure to reduce his "capital loans," the kind that have formed the "renewal habit."

The general plan of action that he adopted for himself he would suggest to many of his customers. He would advise them of the danger of an undue extension of capital at such a time, and of the danger of too large an inventory, of too heavy commitments in the purchase of raw materials, and of overextended credits to customers. In a word the banker would himself play safe and would urge his customers to do likewise. He might be premature in his action; if so, he could console himself with the thought that it is better to be safe than to be sorry, that he moved in the right direction, and that the very prematurity of himself and of others who acted like him contributed towards stabilizing the situation.

The pressure of the market is so much more likely to be exerted on the side of undue optimism at such a time that the danger of being too late in making such preparations is greater than that of being too early. It makes for stability moreover—for a less widely fluctuating adjustment curve—if bankers and business men will differ to a reasonable extent as to the proper time for adopting such measures, and will therefore have recourse to them at somewhat different points in the rising cycle. The effect of their actions then becomes cumulative.

Banker Would Profit

The extensive adoption of such a policy on the part of bankers would retard the upward swing of the business cycle and prevent it from going so far as it otherwise would. It would likewise eliminate the necessity of a corresponding downward swing—in other words, it would tend to iron down the curve and make for business stability. This would be a social gain, but it would also probably yield a financial profit both to the banker and to the customer who followed his advice. An intelligent discounting of the economic and financial future always pays.

In the above illustration it was assumed that the cycle had been rising for some time, and was apparently approaching its crest; the situation would be reversed if the cycle had been a declining one. In such a case a process of liquidation would have existed for some time, the record of business failures would have been relatively high, stock exchange activity comparatively low, with the prices of the more speculative securities either stagnant or tending downward, and those of the most gilt-edged investment securities relatively high as compared with other securities. Bank clearings would be low and bank reserve ratios would be high, but bank funds would be in rather small demand because of the excessive caution of business men in expanding their businesses or in stocking up with raw materials. The ratios of bank loans to deposits would be low; likewise Federal Reserve rediscounts. The proverbial hand to mouth policy would be increasingly evident in business, and unemployment would be growing. "Things in general" would seem to be headed towards a period of depression. Such was the situation in the forepart of 1907 and such in the main has been the situation during the greater part of 1921. What could the banker do towards checking such a decline, cutting off the lower part at least of the trough of the normal business cycle, and start-

ing the curve on its upward movement?

Broadly speaking, he could reverse the procedure suggested above for the time when the cycle was approaching its crest.

The preceding liquidation period accompanied by a relatively large number of failures and reorganizations would have cleared the way and made safer a forward movement. With a substantial period of rising prices and rising interest rates in prospect, both the banker and the business man could wisely make commitments for longer periods than before, greater risks would be justifiable now than at the previous period. The cautious making of capital extensions and improvements by the business man would now be sound policy, and the banker, although he should keep his assets reasonably liquid, would not need to stress liquidity as much as he had at the other period. In the making of loans, local industries of the kinds that had been most thoroughly liquidated should be favored, and longer maturities should be acceptable. The extremely gilt-edged security holdings could well be melted to a substantial into other securities with larger yields, which, though good, would not be the luxuries from the standpoint of safety that the previous holdings would now have become. During the upward movement of the business cycle certain kinds of business normally revive quicker than others—commonly these are the ones that first experience the decline. Such industries, particularly the more basic ones, are the ones that should first receive encouragement.

Our exact position in the cycle at any time can never be known, and sometimes it is impossible to feel certain even about our approximate position. The business cycle, moreover, is only one of many fundamental forces affecting general business. It is crossed and re-crossed by the ever more regularly recurring seasonal cycle. Then again there are the movements covering long periods of years like the wide swings of the general price level and of the interest rate level. Always there is the uncertainty of crops, and always the possibility of war. A new condition like the present after-war situation of Europe temporarily may so overshadow the forces of the usual business cycles as to make forecasting and the discounting of the future exceptionally difficult. By and large, however, and viewed over any considerable period of years, the business cycle is sufficiently regular in its occurrence and sufficiently marked in its manifestations to make possible a fair amount of forecasting and discounting, and the banker who seriously and studiously makes an attempt to do this should in the long run by so doing bring profit to himself and render a valuable service to the community.

Business Cycle and Everyman's Job

One of the most important documents to come before the recent President's Conference on Unemployment held in Washington was a report on "Unemployment and Business Cycles." This report is here published for the first time in the EVENING POST. Definite recommendations are made for exhaustive investigation into the causes and remedies of periodic business depression. The report follows:

The first tasks of the President's Unemployment Conference were to canvass the available figures concerning the numbers of men out of work in various parts of the United States, and to consider the best means of mitigating the suffering threatened by the present emergency. Now that these two tasks are accomplished a third task must be undertaken, a task that looks to the future rather than the present, to prevention rather than cure.

While the proportion of wage and salary earners now out of work is probably somewhat larger than at any previous time in our business history, the present emergency is not without precedent. A similar situation prevailed in the winter of 1914-15, in 1908, and in 1894, to go no further back. Four times in a single generation the numbers of the unemployed in the United States have been counted by millions and the idle capital of the country has been counted by billions of dollars. If the future is like the past, similar periods of misery and financial loss will recur from time to time. The work of the Unemployment Conference is not complete until it has provided for a thorough study of the problem whether we are helpless to prevent the periodical recurrence of such times; whether we cannot at least reduce their intensity and duration.

The best method of handling this problem has been carefully considered. Various proposals for preventing or mitigating periods of widespread unemployment have been suggested to the conference. To determine what among these proposals are practicable, and to devise methods of putting the practicable proposals into effect will take much time and thought. Obviously the whole conference cannot spend months in making the necessary investigations. Instead it authorized the chairman to appoint a committee to see this work done.

Unemployment as Result of Depression

All the proposals for preventing the recurrence or mitigating the severity of future periods of unemployment recognized that the problem is one in which the interests of both "capital" and "labor" are involved, and involved without clash. The vast majority of the unemployed were recently on the payrolls of private business enterprises. These men lost their jobs because their employers were losing money. Over 16,000 business enterprises have been forced into bankruptcy since the present period of depression began, and the number now

operating at a loss must be very large. Unemployment on a vast scale is always a result of business depression. The problem of preventing or mitigating unemployment is therefore part of the larger problem of preventing or mitigating alternations of business activity and stagnation.

Such alterations have been a prominent feature of business experience for a century or more not only in the United States but also in all other countries that have attained a high state of commercial organization. England, Germany, Austria, and France; Belgium, Italy, the Netherlands, and the Scandinavian countries; Australia, Canada, South Africa, Chile, and the Argentine; in recent years Japan and British India have had more or less regular cycles of prosperity, crisis, depression, and revival like the United States. The reverberations of these disturbances in the chief Powers have been felt even by the countries in a less advanced stage of economic development. The "business cycle" is a world phenomenon. It is not to be treated as a specifically American problem or as one of passing interest.

These international aspects of the problem have an important bearing on all proposals for treatment. Anything that we can do now or later towards mitigating business depression within our own borders will prove advantageous to all the countries from which we buy or to which we sell or lend. And conversely, the difficulties confronting American business will be sensibly lessened by the recovery from depression of any of the countries with which we have important dealings.

Control Not Impossible

The world-wide scope and the long succession of business crises do not prove that the problem of controlling the business cycle is a hopeless one. On the contrary, this history, when examined in detail, proves that the problem can be solved, at least in part. For the leading business nations have made incontestable progress towards diminishing the violence of business crises. Each step in this direction has resulted from a wise use of lessons drawn from past experience. The creation of the Federal Reserve System is a notable example of American achievement in this field. That measure prevented the crisis of 1920 from degenerating into panic. Having devised a method of mitigating the severity of crises, we can with good prospects of success turn our constructive efforts to the further problem of mitigating the severity of depressions.

The time to act is before a crisis has become inevitable. The business cycle is marked by

peak periods of boom between valleys of depression and unemployment. The peak periods of boom are times of speculation, over-expansion, extravagance in living, relaxation in effort, wasteful expenditure in industry and commerce, with consequent destruction of capital. The valleys are marked by business stagnation, unemployment, and suffering. Both of these extremes are vicious, and the vices of the one beget the vices of the other. It is the wastes, the miscalculations, the maladjustments grown rampant during booms that make inevitable the painful process of liquidation. The most hopeful way to check the losses and misery of depression is therefore to check the feverish extremes of "prosperity." The best time to act is at a fairly early stage in the growth of the boom.

What Can Be Controlled

In any analysis of our productive processes we can make a broad distinction between our additions to national plant and equipment, such as houses, railroads, manufactures, and tools on one hand, and the consumable goods which we produce on the other. At the present time we increase our activities in both of these directions at the same time and in their competition with each other we produce our booms.

The ebb and flow in the demand for consumable goods may not be subject to direct control; but on the other hand, it should be possible in some measure to control the expansion of the national plant and equipment. If all branches of our public works and the construction work of public utilities—the railways, the telephones, etc.—could systematically aside financial reserves to be provided in times of prosperity for the deliberate purpose of improvement and expansion in times of depression, we would not only greatly decrease the depth of depression, but we would at the same time diminish the height of booms. We would in fact abolish acute unemployment and wasteful extravagance. For a rough calculation indicates that if we maintained a reserve of but 100 per cent of our average annual construction for this purpose, we could almost iron out the fluctuations in employment.

Nor is this plan financially impracticable. Under it our plant and equipment would be built in times of lower costs than is now the case, when the contractor competes with consumable goods in overbidding for both material and labor.

The subject is one of the most profound national importance, and is at least one direction in which a balance wheel could be erected that would tend to maintain an even level of employment and business. The action of the States of Pennsylvania and California in making a provision for the control of public works to this end is one of the most interesting and important economic experiments in the country.

Data Needed to Direct Control

In order to guide such a policy it

is fundamental that an accurate statistical service be organized for determining the volume of production of stocks and consumption of commodities, and the volume of construction in progress through the nation, and an accurate return of the actual and not theoretical unemployment. These services are now partially carried on in the different Government departments.

Such statistical service would in itself contribute to minimizing the peaks and valleys in the economic curve. The same warnings that would enable intelligent action on the part of public authorities and those who control large enterprises in guidance as to the periods in which construction should be deferred or should be inflated would also serve as a warning to the commercial public and would lead in themselves to effect the ends desired. As a first step in such a programme, statistical service adequate to this purpose should be im-

mediately authorized and carried out by the Federal Government.

The committee charged with the following up of the work of the unemployment conference will have to consider other plans that have been put before the conference with the indorsement of various bodies, such, for example, as the "Huber Unemployment Prevention bill" now pending in the Wisconsin Legislature, the schemes for insuring a minimum return to lean years to both capital and labor with which certain corporations are experimenting, and the out-of-work benefits of trade unions. Various systems also have warm advocates—centralized banking, stabilizing the dollar, raising discount rates earlier or more rapidly in periods of prosperity, and the like.

All these topics and perhaps others taken up by the conference might be taken up by the proposed Committee on the Prevention of Unemployment

or left alone, according as the committee saw or did not see a prospect of rendering service by an investigation. Certainly the committee should not be burdened with the duty of investigating every proposal that has been or may be made for the accomplishment of its object. On the contrary, the committee should have power to limit its investigations strictly to those plans whose merit and defects it is able to determine with the means in hand.

A report from such a committee prepared after due deliberation, is necessary to follow out and render effective the emergency work of the President's Unemployment Conference. For no constructive programme of preventing the recurrence of periods of widespread unemployment is likely to succeed unless it is based upon thorough investigation of the underlying facts and a matured judgment on the merits and defects of the proposals submitted to the conference.

October 26

Lessons Learned; Business Cycle Guides One Firm Through Crisis

American Radiator Co. Successfully Lessens Trade Depressions

By Clarence M. Woolley

President of the American Radiator Company

A knowledge of the principles and theory of the business cycle extending over a period of nearly thirty years and a practical application of the theory to the affairs of the American Radiator Company for more than twenty years have convinced me that there could be no greater boon to the American business man and the American business community than a wide diffusion of knowledge of the fact of the business cycle and a general application of that knowledge to business management.

During the last twenty years the American Radiator Company has weathered several periods of business depression and one severe panic—1907—and in the midst of the present depression is having the biggest full season in its history. Its growth has been constant. We attribute these results in principal measure to our having consciously operated under the principles of the business cycle. We chart business and financial conditions, keep our charts up to date, and make plans and conduct our business according to the situation as shown by interpretations of these charts.

Let me illustrate by examples. To go back to the beginning, we first became interested in the theory of the business cycle after the panic of 1907. Study convinced us that it was more than a theory. It was a fact. We noted the technique of the Marshall Fields, Andrew Carnegies and others who did their big build-

ing immediately following panics. Our company slowly developed a scheme of working under the principles of the business cycle, and by 1909 we had put into effect a system of charting from the available statistics of business and financial movements.

Pig iron is one of the chief elements of our finished product. In August, 1907, our charts showed us that the price of pig iron had risen from a low point of approximately \$10 a ton in 1904 to a little over \$26 a ton. Interest rates had also risen to a prohibitive point and the general price structure was up in the clouds.

At a meeting of our board of directors August 2, 1907, we took account of these facts that our charts showed us so graphically and decided that we would sell our house in order for the coming storm. For it was plain to us from our charts that inflation had gone to such an extent that a panic was imminent. The banking system of that period, lacking the essential element of elasticity, was rapidly reaching the breaking point. It was obvious that the credit burden was soon to become disproportionate to the ability of that system to stand the strain.

We proceeded immediately to liquidate our inventories, cut a woeful production, pay our debts and buy only on a day-to-day basis. The panic came in October, three months after we had been able to predict it. The end of the year found us with our debts paid and our inventories relieved of the load of high cost material. We not only came through the storm, but we

were ready to take advantage of the first signs of revival and to help the revival along. And if the number of business concerns employing this method of stabilization can be increased it will check the dangerous peak of supposed prosperity and lessen the tragic dip into depression.

After the 1907 panic pig iron went down to \$14 a ton and remained substantially at that figure until early in 1915. The war had come on in the meantime, bringing depression with it. People were saying that the depression would last indefinitely, at least for the period of the war. The iron and steel business was especially hard hit. But our charts showed us that, although the price of pig iron remained stationary, production was increasing. In other words, in the face of the pessimistic prophecies the demand was growing.

Time to Buy for the Rise

We decided that then was the time to buy pig iron. In February, 1915, we converted a large part of our cash reserves into a pig iron reserve. We bought pig iron and stored it. Two weeks after we had made our contracts the price of pig iron jumped 50 cents a ton and from then on it advanced steadily until it reached \$55 a ton. We bought in the market for our day-to-day needs, only nibbling at our reserve until the price reached \$44 a ton, when we began using our reserve stock.

When America entered the war and the Government controlled certain commodity prices pig iron went back

to \$35 a ton, where it stood when Government control ended. After the Government ceased price control, pig iron went down to \$26.75, and then up again until it stood at the general level of \$46 a ton in July, 1920. We know of instances in which bonuses brought the price up to \$56 a ton, but our charts showed the general level of \$46 a ton. At the same time we saw interest rates at 8%, 9, and 10 per cent, and prices generally greatly inflated.

Once more our directors decided that depression was in sight. Once more we liquidated our inventories, paid our debts, cut down production, and got ready for the storm. We had come by experience which brought understanding to place, implicit reliance upon our ability accurately to forecast the logical trend of finance and business by skilful interpretations of our economic charts. The business cycle was no longer a theory. It became for us a veritable compass to guide us through the gathering mists of depression.

Now we come to 1921. At the beginning of this year our charts showed us a large increase in the number of building permits issued. Detailed statistics showed that the vast majority of these permits was for small houses. Other charts showed the prices of building materials declining. At the same time interest rates were coming down.

We decided that it was to be a moderately prosperous year for us. It was time for us to expand. We made a satisfactory adjustment of wages with our workmen, opened up our factories, increased production, made a big reduction in selling prices, and while the first six months were below normal, the last half will be the largest of record. Our order books are now crowded with unfilled orders, giving the necessary back log for uninter-

rupted production throughout the winter.

These examples all show the advantage not only of understanding, but of applying practically the principles of the business cycle. There are many business men who say the business cycle is an interesting theory, but fails in the effort of practical application. The experience of this company has proved that the principles of the business cycle can be applied to the practical management of business. Under our old banking conditions it was possible to forecast a coming panic or depression from three to four months in advance, while under the Federal Reserve system such changes can be forecast from six to eight months in advance. The revival can also be foreseen, for your charts keep you accurately informed of the trend of economic movements.

Eugene Meyer said the other day in Washington: "Pessimism always follows, it does not precede, a panic." The condition ought to be just the reverse. The time for pessimism is just before the peak, when prices are inflated and money is high. For the informed man then knows that depression and hard times, if not panic, are bound to come. And the time for optimism is when prices are down and hard times are with us. For in the final analysis these are the conditions that breed prosperity.

There is one thing, however, that I would like to emphasize, and that is that statistics, to be of use, must be studied, digested, and comprehended. They must be read in connection with all their modifying factors. There is nothing more dangerous for the average man than undigested statistics. But given complete and accurate statistics thoroughly understood, and the psychological factor, so much insisted upon as taking the value out of statistical calculations and forecasts, can be discarded. The

effect of the psychological factor is contained in the statistics.

Every Business Different

Every business has its peculiarities. Every business man will need his own statistics and his own set of charts to guide him. I don't mean he will need statistics that he gathers himself, but particular sets of statistics that he can get from recognized sources, and upon them, after careful study, he will base his judgments.

In this company we lean with particular weight on our charts of pig iron prices, building material prices, building permits, interest rates, and strikes in the building trades. In 1920 it was not the price of pig iron alone on which we formed our opinion that a depression was close at hand, but the price of pig iron in connection with the interest rates.

Another business would need a different variety of statistical information, but all business must follow the interest rates. The price of money has a direct bearing at all times on the business situation. When interest rates get too high the flag is up signaling a depression under way.

At the present moment, in my opinion, the business revival has started, although deflation has not quite run its course. Money is too high for developmental purposes. Income taxes, especially in the upper brackets, tend to sap the sources of normal growth. Railroad rates are too high. Transportation costs are excessive price factors in most of the key industries. Progress thus far is largely due to concession. Some contributions to the common purpose are yet to be made by labor as well as by capital, before general business currents reach a normal flow in the revival now in the initial stage of development.

Wrong Ideas Must Be Liquidated

By M. C. Rorty

Vice-President Bell Telephone Securities Company

No one who surveys the events of the last fifteen years can question the importance of developing all possible antidotes and correctives for business depression. However, the antidote that perhaps is needed most of all is an antidote for over-optimism with respect to what may be done.

It may be comparatively easy to assemble the facts and principles which will enable intelligent executives and business organizations to discount, and therefore to minimize for themselves, the effects of periods of business inflation and depression. To some extent this gradual education of individual business organizations may react on business as a whole. But those who hope that all business organizations and all the people can quickly be brought to a realization of the things that must be done and left

undone in order to avoid extreme variations in business activity are very surely doomed to disappointment.

If business depressions had only to bring about liquidations of business conditions the problem would be simple. The great difficulty lies in the fact that business depressions are very frequently called upon to liquidate ideas—and ideas in the form of economic fallacies are most refractory ones and yield with extreme reluctance to the smelting of facts and experience.

A business depression is fundamentally an illness brought about by a combination of business excesses and economic diseases. It very rarely is the result of a single cause. The immediate crisis ordinarily results from over-expansion, but when the process of recovery sets in it is usually found that there are numerous kinks and defects in the business and economic structure that must be cleared up before convalescence can be complete.

Studies of the business cycle have

to-day progressed to a point where there is substantial agreement as to many of the principles that must govern in maintaining business on a reasonably even keel and in hastening recovery whenever an unavoidable crisis comes. The difficulty is not in prescribing adequate remedies, but in prevailing upon the patient to take the medicine.

The first requirement indicated by these studies is that the expansion of bank loans shall be checked at the point where proper business activity begins to run wild into inflation. A sound application of the principles on which the Federal Reserve system is based requires that this check shall be applied through increases in interest rates. It must always be possible to borrow on proper security at a price, but this price must become high to all borrowers alike when the point of inflation is approached.

Our present banking system is absolutely free to operate as a banking system in the hands of trained bank-

ers and in such hands we have reasonable assurance that any renewed tendency toward over-inflation in the next two or three years will be checked before serious harm is done. It is to be hoped that the new banking system has already acquired sufficient stability and public confidence to withstand the pressure of politics and demand for the dispensing of special favors to those interests which for the time being have political power. Will even the business men, who should insist on high rediscount rates when inflation approaches, welcome such rates when they are actually imposed? Will there not be charges from farmer and merchant alike that the bankers are falsely prophesying the approach of a crisis in order to have an excuse for increasing their own profits?

Effect of Abnormal Factors

Another thing indicated by studies of the business cycle is that abnormalities in the prices of commodities and services, which may not seem of great importance during a period of inflation, may nevertheless interfere very seriously with the process of recovery after a crisis. At the present time there is general belief that business might be greatly stimulated if building costs and freight rates could

be brought more nearly into line with the general price level. However, in the case of the building trades there is evidence of a variety of monopolies and semi-monopolies in building supplies and materials; while both building costs and railroad freights are affected by the unwillingness of powerful labor unions to surrender recent increases in real wages.

It is not necessary to express an opinion as to the merits of either controversy. The essential point is that the pessimistic student of the business cycle seizes upon these facts as reasons for his belief that control over business depression will be slow and painfully established. He claims that a sustained normal business activity, brought about through an intelligent control of bank credits, would tend to invite the building up of dangerous business and labor monopolies. He contends that periodic business depressions afford the only safeguard against such business ossification, and that occasional depression is preferable to permanent ossification.

Work for the Forseeing Optimist

When it comes to relief measures the pessimist also has his fling. He points with pessimistic glee to the present attempt to maintain exports and secure payment of foreign obliga-

tions to this country, while at the same time blocking imports by extreme advances in tariffs. He is not hostile to emergency relief work, but he asks whether there will ever be a general public acceptance of the economic necessity for requiring a full day's service on such relief work for something distinctly less than the market wage.

The writer is himself an optimist, rather than a pessimist, regarding the possibility of securing a more evenly sustained business and industrial activity. He has infinite faith in the ability of the mass of the American people to comprehend fundamental economic truths and in their willingness to submit themselves to the restraints that will be necessary if future business depressions are to be minimized. However, the working out of the solution will not lie with either the pessimist or the enthusiast of a day or a year. It is a problem for the far-seeing, patient, and public-spirited optimist who can be satisfied to seek his results in the next generation if they cannot be obtained in this. This does not mean that all progress will be postponed to the next generation. Much will be gained if the present depression brings home to a substantial number of business men the real nature of the business cycle and the importance of advance preparation for the inevitable swells.

October 27

Labor Experiences "The Cycle"

By Leo Wolman.

Chief of Research Department, Amalgamated Clothing Workers of America.

Workers know no more about the facts of depression and the business cycle than does the average business man. What they think and feel about a depression is the result of their own personal and immediate experience with it. They know it as a period in which they are out of work and are thrown upon their own slender resources. They know it as a time when their wages are slashed, so that even when they do work they earn less than they did before. They see millions of their fellows, yesterday prosperous, to-day on the verge of distress and misery. Attempts to mitigate their suffering they regard as weak, half-hearted and largely ineffectual. Out of a set of experiences and observations of this kind grow whatever attitudes towards depressions workers may have.

Their reactions are moreover not the product of hallucinations, but usually of the facts as they see them. Every one familiar with the history of the present depression will remember how it was ushered in with vague threats of bread lines and union-busting campaigns that would soon teach labor its proper place in the world, unemployment was in many quarters ever hailed as a godsend, since it would be the means of reducing labor to impotence. Whether deliberate or not, open shop movements found their points of departure and took on fresh impetus not in the periods of business activity, but during the depression. The aspirations to protect the rights of the non-union workers against the aggressions of the organized are, as a matter of history, phenomena largely peculiar to

be sure, been as great as the rise, but it has always been substantial. It would be no exaggeration to estimate the fall in trade union membership since the beginning of the present depression at a figure approaching 1,000,000 members. Some of this drop is no doubt due to such causes as the inability of people to pay dues or to their leaving the industry. But most of it comes, as a study of the figures clearly shows, in those places where business men have deliberately engaged in the task of destroying unions. These facts every workman knows, if not in the large, at least in his own shop or in his own industry. Wherever he knows them, much has been accomplished thereby to prevent him from being a sweet and reasonable person, ready to discuss wage adjustment and liquidation in a rational and impersonal manner.

Much the same kind of facts combine to determine the position of the worker toward the adjustment of wages in periods of falling prices. In spite of the spectacular rise in prices and wages after 1916 and the resistance of organized and unorganized workers to wage reductions during the last two years, the probability is that the great mass of working men and women in the country have lost heavily in the process of readjustment. The loss, moreover, is not a temporary one, limited to the period of actual depression when profits are low and the volume of business is falling, but it becomes permanent and is extended to the period of business activity which

Labor's Condition Follows the Cycle

A chart based on the statistics of trade union membership will show that the rise and fall of trade union strength is in almost complete agreement with changes in the business cycle. In the 90's in 1907-08, in 1914, and again in 1920-21 the membership of American trade unions has dropped in response to changes in business conditions. The drop has never, to

always follows the depression. A recent and highly authoritative study by Paul Douglas and Frances Lamerson of the course of wages in this country from 1890 to 1913 shows that the employees in a group of basic and representative industries were heavy losers in this whole period. Specifically these investigators find that "the purchasing power of an hour's wages was 28.7 per cent less in 1913 than it had been during the years 1890-99, and that the purchasing power of full-time weekly earnings was 29.6 per cent less than during this period." For the two years following 1913, wages, of course, rose very rapidly. But people are prone to forget that these same two years were characterized by one of the most spectacular price-rises in the history of the country. While the full data are not available, an examination of samples here and there leads to the conclusion that the relative status of workers was little better at the peak of prices in 1920 than it had been in 1913. These are the conclusions drawn, moreover, not from abstract speculation, but from the scientific analysis of the available facts.

With the collapse of business in 1920 came the wave of wage adjustment. At first progress was slow. Attempts to reduce wages met with vigorous resistance, which was frequently successful. Public announcements by business leaders in many industries defended proposed wage reductions by pointing to the fall in the cost of living and by indicating their intention of maintaining a parity between the wage level and the purchasing power of the dollar. Soon, however, the situation changed. The volume of unemployment grew. The position of trade unions became weaker. The cost of living as a standard of adjustment was discarded. And industry after industry, either directly or indirectly, put into effect wage reductions out of all proportion to any drop in the cost of living. The effects of this practice are clear. In the first place, the weak and unorganized workers are thrown back on a standard of living even below that which they enjoyed before the war. Whereas the strong and organized

groups, observing the experience of the others, are stiffening their resistance and are conceding wage reductions only where reduction is shown to be unavoidable.

Aside from the merits, then, of particular demands for wage adjustments, the facts seem to point to the use of the depression by business men for purposes other than those of legitimate business readjustment. As long as this continues to be the case, the country may look forward to the repetition of those great industrial battles which make industrial depressions even more disastrous than they would otherwise be. That this need not be the case is shown by the experience in many industries in which self-respecting employers work openly and above board and on even terms with self-respecting employees. In such cases, too, there have been difficulties. But the instances of successful, effective, and peaceful adjustment in these difficult times are frequent enough to recommend this method to those employers who have tried the others and have found them wanting.

October 28

Business at Crest and Trough

H. S. Dennison, president of the Dennison Manufacturing Company, sketched with a pencil the wave and the trough of a typical business cycle and dotted in the lines representing both what would be desirable and what would be practically possible in the modification of the extremes of inflation and depression if business had the knowledge and the foresight to adopt the proper measures.

"Whether or not it would be desirable," he said, "to flatten out the line of business activity to the straight line of growth—I am inclined to think it would be undesirable to do so—it certainly is impossible to do it. However that may be, it is not the wave itself but the breaking crest of the wave that does the damage. We should therefore focus our attention upon the crest and try to discover and apply measures which we may reasonably expect to modify it.

"The crest of the wave is due to the widespread belief in the continuance of the rate of expansion of the country and its business, which is too great to be maintained and assimilated. Over-estimates in this regard, over-estimates in the individual enterprise of requirements and of future prices, lead to over-extension of plant, over-purchases of raw materials and merchandise, increasing size and inefficiency in labor force and in methods of management, and over-straining of credit resources. These effects apply to commerce, industry, transportation, and public works.

"Granting all this—and nobody will dispute it—what can the individual business man do in the management of his concern to flatten out the line of expansion and depression and reach, if not your dotted line of 'desirable' compromise, at least something nearer what you have indicated as 'possible'?"

Information the Basis of Action

"Well, I can only tell you," Mr. Den-

nison replied, "what we have done ourselves: what helped to put our business in a position to weather the storm when it came. It has been tested over a considerable period and it has justified itself in our experience.

"Our practice follows a policy affecting our conduct of production and plant-development, our use of our own credit and its extension to our customers, our purchase of raw materials and merchandise, our advertising.

"The policy of our purchasing department, for example, is based upon records showing the swing of prices over a long period of time. Except during wars and their immediate aftermath, these records of prices give workable indications of normal price levels. Our purchasing agent pays close attention not to the extremes of high and low, but to the normal, and the relation of those normals to profitable business.

"During the crisis and the early part of the depression that follows,

our purchases, like those of everybody else, are 'from hand to mouth.' With the first signs of recovery we begin to 'loosen up,' and from that time on, as long as prices remain well below the normal line, we buy most freely in proportion to the rate of consumption. All the way up to and across the line that represents what we have found to be the long-run normal of prices of our materials, 'stock limits' decrease. At some price well above the normal we begin to slow down as a matter of general policy, and presently we are again buying only from hand to mouth.

"Prices may still be increasing, and in some purchases we may lose by holding to the policy of smaller quantities for immediate needs. But we have never been able to predict exact prices, and our experience is that we come out better in the long run by our more conservative policy than by buying heavily up to some 'peak price,' at which we can only guess.

"Naturally, with regard to the items of most account in our particular line of business, we keep closest watch upon the special influences which seem to govern the general trend and fluctuations of those special markets. With them, as, in fact, with all the lesser ones, we are guided rather than shackled by our general purchasing policy. But on the whole it is very broadly lived up to. It certainly justified itself last year by leaving us with light stocks on hand of almost every item when the prices started to break.

"What business needs generally is not less vigilance on the part of individual concerns as to the special conditions affecting particular lines, but a very much larger and more detailed body of information, gathered widely and authoritatively, and dis-

tributed promptly and frequently, regarding the things that both govern and exhibit the currents at work to bring about and accelerate or retard the fluctuations of the business cycle."

"What sort of information would you have gathered and distributed?"

"The most important thing, it seems to me, is to have well presented and widely distributed by some agency in which we could have absolute confidence those facts which would help towards correct estimates of the course of sales and prices. These would be at least the following:

Statistics of inventories and goods on order.

Statistics of production with the ratio to production capacity.

Statistics of construction begun and under way.

Weekly earnings and hours by trades and establishments with the ratio to capacity.

Employment statistics.

Statistics of cost fundamentals.

Factors affecting probable demand for or consumption of specific articles.

"Remember that while consumption, especially in a country so large as ours, and with a constantly rising standard of living, is capable of indefinite increase, the rate of increase cannot be indefinitely speeded up. Nor can expansion either exactly foresee or exactly match that rate. Whenever expansion overtakes or materially exceeds that rate, it strains the whole structure, and we are due for a tumble. Taking the country at large, and having in mind the 'ultimate consumer,' on the up wave we are stocking up. On the down wave we stop producing, and are drawing on stock. That's the story, every time."

Here Mr. Dennison reverted to his sketch of the business cycle.

Measures at Peak and Trough

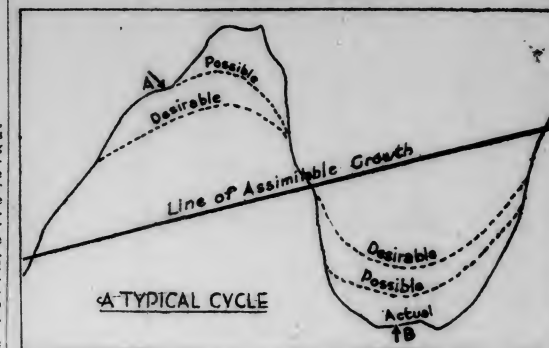
"Now, take this sketch, and note the points at which I have put arrows—

'A' and 'B.' It is to the froth of speculation at the top of up-wave and to the gloom of paralyzing fear at the bottom of the trough, that follows the break, that we should devote our efforts of education and co-operation. The arrow 'A' points to the place where the information that I have outlined as desirable would help us to put on brakes. Business now will not listen to warnings uttered at 'A'—things are too good, the boom will go on forever. So the next best thing is to apply the same kind of information, at the point where the other arrow points to 'B,' when we are buried in gloom, and business feels as if the bottom had fallen out of creation. Then is the time to have

correct estimates of the course of sales and prices, and on the basis of such estimates apply judicious expansion of credit and easing of interest rates with preferential loans for productive purposes, for the undertaking of withheld projects. Then, when business is in a teachable frame of mind, after bitter experience, is probably the only time to learn, not only what to do at 'B,' but what to do next time at 'A.'

"But we can't do anything effective in the way of co-operative action at either point without reliable and continuous information, and underlying that the intelligence that comes from an understanding of the fact of, and the factors in, the business cycle."

H. S. DENNISON'S SKETCH



Representing a typical business cycle. "A" is the point where measures ought to be taken to prevent the extreme of inflation. "B" is the point where wise and well-informed foresight might prevent the extreme of depression and expedite the upward swing.

October 29

A Business Policy For To-day

By Mark W. Cresap

Of Hart, Schaffner & Marx

The armistice of November 11, 1918, ushered in a period of great uncertainty in business generally, which the clothing business shared to a very marked degree.

The high prices produced by the diversion of men and materials to the war and by other abnormalities were always referred to as "war prices," and it seemed only natural that the end of the war would bring with it the end of "war prices."

This was the situation that faced merchants in the fall of 1918, and they met it in two ways: Some stopped buying and waited for the drop in prices; some kept on with the ordinary

processes of their business and were in a position to profit by the enormous demands which 1919 brought with it.

Of the two classes, those who waited on the expected fall in prices were diverting their attention from their main business—the selling of clothing—in the hope of profiting by speculative changes in the market. The others concentrated their attention on selling, turned their stock rapidly, and rebought.

The year 1919 brought with it a further great price inflation, consequent upon the extraordinary demand created by the return to civilian life of 4,000,000 demobilized soldiers, and by the more rapid rise of wages than of prices, at least in many quarters. This continued into the early months of 1920.

On the day after Easter, however, which fell on April 4, 1920, there came throughout the country a conspicuous

curtailment of buying. The price limit had been reached and the almost simultaneous cessation of buying which took place in every corner of the country presented an interesting phenomenon, partly economic, partly psychological, and not wholly explicable.

Tremendous Investment at Stake

For a period of a month or six weeks there was little activity, pending development. The retailer had in his store goods purchased for the spring of 1920, and he had on order goods purchased for the fall of 1920. These two seasons represented the highest prices ever known in the clothing industry, and the merchant had a tremendous investment at stake.

The public refused to buy at these prices. No store can go along without business—its expenses would eat it up

—and this is doubly true where the commodity sold is perishable or semi-perishable. Thus price-cutting began in an effort to stimulate business. It became general in May and June and continued almost without interruption for about a year. In many cases goods were sold at far less than their replacement value at the time, but the only thing that could be done was to sell and then attempt to deflate the price of raw materials and the cost of production later.

By the end of that year the merchandise bought at peak prices had been sold at one price or another, the price level had changed, dropping approximately 34 per cent, and the whole situation had become fairly stabilized at a price range of about 1.79 compared to the pre-war period.

Some manufacturers and merchants went through the period of deflation with flying colors. Here again the same difference in viewpoint which was exhibited after the armistice was apparent. The wise merchant kept on selling—he did not hold his goods because replacement values were higher than the prices at which he could sell his holdings. He moved his merchandise at what prices he could, and kept up his volume; and as a result he sold on the drop instead of at the very bottom and thus minimized his loss. In addition, he avoided an increased percentage of expense by avoiding a dwindling volume.

Those who took their loss quickly are now on a comfortable basis; the others suffered severely in some cases, losing as much in one year as had been made in the five preceding years. It is, on the whole, surprising that the mortality has not been greater, but altogether it can be said that the clothing business liquidated in a highly creditable manner.

Protected Against Losses

During the period of inflation we made it our rule not to engage in any expansion without first carefully considering the possible effect of a sudden

contraction of business. This protected us against too great factory expansion and fixed charges which might later prove excessive. We depended on quick turnover for keeping down our inventories, with the result that, although we did about twice as much business in 1920 as in 1919, we had less than half as much inventory after depreciation at the end of 1920.

It was our opinion that high-priced goods owned by merchants should not be carried out in stock a moment longer than necessary. We liquidated our own stock on that basis and we advised every customer on our books to do the same. We were not successful in getting them all to do it, but we succeeded nearly enough, so that our credit losses for 1921 will be negligible.

Our policy for 1921, and that includes the policy we emphatically endorsed to our customers, was, after disposing of our old goods and getting on the new price level, to meet the public demand for lower prices by operating on the closest possible basis and to examine the overhead carefully from month to month in the light of changing conditions in order that it might quickly be adapted to fluctuations in volume.

Many merchants continued to lose money in the early months of 1921. We urged them to get their business as quickly as possible on a paying basis and stop the depletion of capital. The reports from all quarters of the United States indicate that there is a very general movement in that direction.

Lessons From Recent Experiences

The lessons from the experiences of the critical years of 1919, 1920, and 1921, as we see them, are:

(1) That the modern organization of business, with its large investment in stock and heavy expenses, makes it necessary to keep business going; the alternative is an expense and depreciation that is ruinous. If business is

kept going and the turnover be rapid, the losses on the inventories on hand at any time will be small relative to the continuous benefits accruing.

A retail merchant's function is that of consumer's agent. His job is to buy, to sell his goods rapidly, and not to try to play the game of market speculation. If he waits for the market to go down before buying he loses business; if he waits for the market to recover before selling, he loses business, he risks a still larger loss—and his expenses go on. The merchant's safety lies in the quick turnover and rapid selling. If he faces a loss the thing to do is to take it, and take it quickly. In this way he lessens his depreciation, lowers his overhead, and reduces the cost of distribution.

(2) That every merchant, manufacturer, or retailer should know about how much business he can successfully do on his capital and never permit himself to go beyond that limit. Any banker can give abundant evidence of the number of businesses which are now suffering embarrassment because they did not have sufficient capital to finance themselves safely. They relied on a continuance of the easy times in which they were launched, or expanded, and the slowing up of business quickly made it apparent that they had stretched their capital beyond the safety point. If a merchant finds his volume exceeding what his capital can properly handle he should do one of two things—limit the volume or increase the capital.

(3) That a fluctuating volume and a rising overhead are a very treacherous combination, and that the statistical end of every business should be so organized as to reflect immediately true conditions and indicate trends.

(4) That the average American business man is much more honorable and tenacious of life than he was twenty-five years ago, and, considering the severity of the deflation, there were comparatively few attempts to compromise, indebtedness, and an extremely limited number of dishonest failures.

October 31

Running a Big Retail Store as Prices Decline

A brilliant example of the need for clear business thinking on the part of those who have responsibility for the success or failure of big business enterprises is shown by the recent experience of one of the largest of New York's department stores. Incidentally, the same story shows a sad proportion of business executives who do realize that there is a principle animating business progress. In this case it is one in seventy.

Before starting the story it might be well to point out that reliable statistics show that in volume the movement of goods over retail counters

of the country has been larger to date in 1921 than for the same period in 1920. These statistics taken by themselves are likely to be misleading, for they would seem to indicate that the retail trade has been prosperous through the depression which has affected every other line. They must be read in connection with other figures, showing that in value the movement has been considerably less.

The actual situation was that the retail trade of the country came up to 1920 with huge inventories of high-priced goods and was faced by a falling market. In other words, for all

the statistics indicating a huge retail trade in 1921 the retail business this year has been in just as parlous a state as any other line.

How This Man Works

Now for the story. The chief person concerned is the managing head of the store. It is his own modest wish that his name be not disclosed. On an upper floor of the store he has a large office facing a busy street. There is an expensive carpet on the floor of the office and there are two expensive desks and a se-
lative occupies the office in solitary state. The executive chairs. The execu-

He smokes pretty constantly and spends a good deal of time walking around the room chewing the end of a cigar. Some more of his time is spent before one of the windows, his feet spread apart, his hands under his coat tails, looking out on the busy street. Once a week there is a meeting of the department executives and buyers, at which the managing head listens to reports and opinions and receives advice—also gives advice. At other times the managing head visits the various departments and has little conversations with their heads. But the impression one receives is that most of his time is spent wearing out the expensive carpet in his large office.

"Your business has come through this depression in such splendid shape," I said, "that it would be extremely interesting to know how you have done it."

"Is the depression over?" the manager asked.

"Well, what do you think?"

"I think," he replied, "that the prospects are for the upturn. We are doing an excellent seasonal business now, and I look for business to continue good through the winter and get better as we approach the spring."

"We seem to agree on that. Now, will you tell me what it was that made you think a depression was coming and what steps you took to meet it?"

Foresight in 1919

The manager assumed a thoughtful expression.

"It was back as far as 1919," he said, "that I decided prices had to come down. They were away too high, you know, following the war-time boom. And when prices go up they have to come down. That is, if they go too far up."

"Lots of people talk about normal prices and normal business, meaning the business and prices of 1914. But you've got to remember that there is a normal increase of business and rise in prices. I figure the business increase at about 10 per cent a year with us, which brings us at this time up to about 60 or 70 per cent above our 1914 level, and the rise in prices that would have taken place since 1914, leaving the war out of consideration, at about 25 per cent."

"So, I figured our 1919 business on that basis, and it was evident that

prices were inflated and business was inflated. We had to figure on lower prices and a falling off in business. In addition, there were conditions in Europe to be taken into consideration. Europe was in a bad way and was going to be worse. We couldn't escape the reaction from European conditions. That would bring our prices still lower and make our business still worse.

"There wasn't any way to say exactly when we would be hit, but that we would be hit was as certain as death and taxes. But I couldn't convince my department executives and buyers of it. We have about seventy of them in this establishment and they all thought me getting too old and conservative. There wasn't one of them I could convince I was right."

"They said the war had put punch and pep into business and boosted everything up to higher levels, where it was going to stay. They said the boom was going to last for years, there was no end in sight. And the salesmen who came in here were always boosting that game. They were all the time warning our buyers that they couldn't promise to fill orders at any specified time."

"Order all you want," they would say, "and then double it. You won't get more than half what you order, any way, much or little. We're stacked up so far ahead with orders that we never pretend to fill more than 50 per cent of an order."

"Then our buyers would tell me about it and say, 'Look at that. The country never saw such a boom. You can't go wrong.'"

"But we kept our orders down, just the same, and I noticed that they were always filled to about 110 per cent. It didn't look so good to me. But then, I'm old and conservative, and I couldn't make our buyers see it."

"They saw it in the spring of 1920, though. I went away for about a month at that time, and when I got back, I found they had all come around to my view. We started a campaign of cutting prices and selling then. Luckily, we didn't have a big overstock. But what we had we put on the counters and took our loss. In a short time we had cleaned out \$1,000,000 from our inventories."

"We didn't stop buying. We bought right along—but only what we need-

ed—and kept our stock replenished on a falling market. And we made up in profits on the new goods what we lost on the high-priced stock and made money on the whole transaction. We are still continuing that policy."

"But we couldn't have done it if we had loaded up with a huge high-priced inventory in 1919 and the early part of 1920. I don't look so old and conservative to a lot of these fellows now as I did two years ago."

"I suppose to make the overhead balance with the falling prices, you had to cut wages and salaries all around?"

Did Not Cut Wages

"No," he replied. "We haven't cut a penny. I am one of those who believe retail trade wages and salaries always were too low. We put pay up to meet the increased cost of living during the war and we are going to keep it up. We have met the increased overhead in a different way. We have done a lot of scientific work here in the last two or three years and what we are doing is getting increased efficiency. By doing that we are keeping up pay, keeping up insurance, keeping up pensions, and we haven't got any increased overhead. You might put it that we cut the overhead by not having to put on four or five hundred extra employees every little while to take care of the seasonal rush. Increased efficiency among our regular force handles the seasonal rush better than a temporary increase in force."

"And you think the general outlook is good?"

"I believe in America. I believe in the future of this country. When deflation is finished—and I think it is about over with now—I believe we are going to swing into a period of prosperity again. I think it is under way now and we will get back to normal; not the normal of 1914, but 1914 with the natural increase of seven years added. And after we have reached that point we will strike out for the 1920 level."

"But you have got to remember that when prices got too high, when business goes beyond the regular yearly progression, there has got to be deflation, with falling prices and slackening business. Then, when the hot air is let out of the balloon it begins to inflate again."

November 1.

Uncertainty Causes Up-and-Downs of Business Cycle "Forecasts Come True Only When People Do Not Accept Them"

Psychology Rules Securities
Markets as It Does Industry

A well-known banking expert in this article points to the particular things which business men should observe in the guidance of their business action.

By John E. Rovensky

Vice-President National Bank of Commerce

Belief—human psychology—is the animating force of the business cycle. Men always believe that prices are either going up or going down, and act on their belief. So long as the community believes prices are going higher, business is brisk. Conversely, when the belief prevails that prices are going to be lower, business is poor. Between these two states of mind, and the periods that they produce, we have usually a "twilight zone" of hesitation—the twilight period at the base of declining prices being usually longer than at the top of an advancing market, when men are apt quickly to change their position to "get from under."

Prof. Kemmerer in his articles in the *Evening Post's* business series wisely said:

"The business cycle thrives on uncertainty."

The existence of the business cycle has been recognized as an established fact for a great many years and business men have operated in the face of such cycles ever since the modern industrial organization became well established. In America we have had major business cycles, culminating in crises or panics, about every twenty years since the earlier years of the nineteenth century. Severe crises occurred in 1837, 1857, 1873, 1893, and 1907. Minor cycles intervening between these dates have culminated in somewhat lesser crises, and every few years we have witnessed periods of prosperity followed in order by crisis, liquidation, depression, and revival.

But to admit the periodical recurrence of the business cycle is one thing; to attempt to forecast it is quite another. A forecast, if accepted as correct by a substantial part of the community, tends to prevent (or ameliorate in proportion to the num-

ber of people who acted upon it) the happening of the event predicted.

"Forecasts True if Not Accepted"

In other words, a forecast can only come true to the degree that it is not accepted by the people. I deem it important to point this out for the reason that occasionally attempts have been made by writers to reduce the forecasting of the business cycle to a statistical formula, which may mislead one to believe that such predictions can be made with the practical certainty of a weather forecast.

If we bear in mind the purely psychological cause of the business cycle, we shall better understand its vagaries and shall appreciate how impossible it is to draw a chart or other guide based on statistics that would forecast the movements of the business cycle with precision.

Real Value of Warnings

The value of such guides is confined, in my judgment, to pointing out, in boom times to the business community the heights to which optimism is carrying it, and thus by causing the upward movement to temper the effects of the inevitable reaction. Likewise in periods of depression such guides are valuable in hanging about a feeling that the downward movement has gone far enough and that better times are ahead. In a word, if the business community were to closely study the operations of the business cycle the result would be a shortening of its diameter—the swings from one extreme to the other would not be as great as at present. In a Utopian community peopled by precise thinking machines devoid of sentiment the business cycle could not operate.

How can we gauge this uncertain factor of human psychology in order that we may form an opinion as to how much further the present movement of the cycle will continue? Naturally there are many symptoms of varying reliability in various lines of business. But the one that most concretely and reliably expresses the feeling of the community is sales. The unfilled tonnage report of the U. S. Steel Corporation is an eloquent argument on the steel situation, and if such figures were obtainable in all the leading lines of business they would furnish an excellent guide as to the temperment of the business community.

When Ratio of Increase Fails

It must be borne in mind that the approach to the crest of an upward movement is reached while sales are still increasing. The first warning sign

is when the ratio of increase in sales begins to decline. Sales may continue to increase but the driving force behind the upward movement is losing its power. The ratio of increase tapers off until the twilight zone is reached and then comes the decline. The same rule holds good at the bottom of a downward movement—a period such as we have been passing through.

The limitations of this article compel me to confine myself to the part played in the business cycle by the commercial community. But the psychological element is just as potent in the security and other markets. Obviously other symptoms evidence the movements in other fields. The volume of undigested securities, interest rates, etc., indicates here the trend of events. And finally the business cycle of the entire community is a complex of the movements in all the various lines of human endeavor—sometimes the movement in one offsets the movement in another, though usually they tend to accentuate one another.

Upward Trend Now Starting

The present business cycle appears to have reached the bottom of the depression and to have started slowly on the upward trend. The curve of this upward movement—the probable length of the period before a pronounced improvement is attained—is impossible to forecast. There are many definite indications of improvement, but there still exist some very uncertain factors. Frozen loans, which loomed so large in the aggregate nine months ago, no longer constitute a serious obstacle to our business recovery.

The upward movement will probably be irregular for the next few months. As to when recovery shall have got completely under way, it is now impossible to say. The chief factor is the psychology of the business community. Whenever the majority of our people regain confidence in the future of prices the recovery will become more rapid. Important obstacles to the establishment of such confidence still partly obstruct the way. Among these obstructing factors is the uncertainty arising in part from the unequal rates at which price and wage adjustments have taken place in the various branches of industry. The uncertainty of the European situation also acts powerfully to retard the return of confidence.

November 2

How One Exporter Foresaw Business Decline Abroad

"To-day's article in the *Evening Post* business news series shows the vigilant study of varying conditions in every country required for successful handling of trade and credit in war- and peace-time."

Theodore T. Malleson

Export Manager Royal Typewriter Company
(An interview by Fred B. Pitney)

"The exporter who doesn't figure in advance on what trade conditions are likely to be will very soon find himself in a bad hole," said Theodore T. Malleson, export manager for the Royal Typewriter Company. "Forecasting business conditions is the life of the exporter. I don't know but that it is more important for the exporter than it is for the man engaged in purely domestic business, and I am perfectly sure it is much more complicated."

"Now, what do you want to know? Anything I can tell you I will. Shoot."

"Suppose you begin by explaining the special importance to the exporter of forecasting conditions and why it is more complicated for him."

"Business," said Mr. Malleson, "is a series of swings or ups and downs. Over a period of years you will have prosperity, followed by hard times, and then prosperity again. Business always goes on in just that way. It goes on in that way in every country in the world, but hard times or prosperity doesn't hit every country at the same time. And that is what complicates things for the exporter. The man in domestic trade has to forecast for America, but the exporter has to forecast for every country where he does business and for each one separately."

"The reason it is of special importance to the exporter is that he carries his clients on long-time credits, and foreign collections are always more difficult and take longer than domestic collections. If the exporter does not forecast conditions correctly he is very likely to find himself tied up with a lot of long-time credits that will be frozen credits when they fall due. He can't depend on his clients to look ahead for him and order only what they can handle. He has got to do it for them and keep their orders down, often when they want to splash."

Take the Case of Spain

"I will give you an example in Spain. Spain had during the war the greatest period of prosperity she has known in four hundred years. Every-

thing was humming. The Spanish people never had so much money. But when the armistice was signed it was plain to us that Spain was going to have a reaction and especially that our business in Spain was going to have a setback."

"There was a great deal of political unrest in Spain and the Anarchists and Communists and Bolsheviks began to get much more active immediately after the armistice. That was one sign that there was going to be a business reaction. Another was the self-evident fact that the countries that had been at war, where the Spanish merchants had found their big markets, would begin to produce for themselves once more. And there was the particular evidence for us that Germany was on tiptoe to flood the Spanish market with cheap goods."

"Our agents in Spain couldn't see it. Business was still going big with them. They thought it was going to keep up forever. But we had a broader view from the outside than they had. When one of our Spanish agents would send us an order for 300 or 500 machines, we would ask them if they didn't think they could get along with half that number. We kept their orders down. We wouldn't let them buy."

"Within three months Spain was in the beginning of a business depression that kept getting worse. She has just passed through about fifteen months of absolute stagnation. But we were not caught by it. We saw what was coming, liquidated our stocks in Spain, kept our accounts down, and came through in good shape."

"Things are beginning to pick up again in Spain. The Anarchists have had to let the factories open and go back to work themselves to keep from starving. Barcelona is opening up. That is the center of the big industrial district of Spain. We are going into Spain and selling again. The upturn has begun there."

Margin of Safety

"How long a look ahead does an exporter have to have?"

"We feel that we need in our business from three to six months. Three months is the minimum. We have to have time to turn around before a change makes itself felt. We have to liquidate before a depression and we have to be ready to supply the market when the revival begins."

"Suppose you tell about general European conditions, what you looked for after the war, and the steps you took."

"Of course, there were special conditions affecting our business. But that is true of every business. Every business man must form his own judgment on conditions as he sees them."

"We looked over the situation after the war and we saw that the European Governments were loaded up

with machines that they would want to get rid of. That meant that we would have the competition of a lot of cheap machines that would go into the hands of small dealers and dealers in second-hand machines and be sold for extremely low prices. There was another complication. As soon as the war was over the European Governments began putting on the taxes. There was a lot of talk about it first, but the talk was enough to scare the people and stop buying. It so happened that after the taxes were levied there was a period of extravagant buying. People bought everything they saw, whether they needed it or not, because if they didn't spend their money, they would have to pay it to the Government in taxes. But that period of extravagance didn't last long. The high taxes very shortly had the anticipated effect of stopping buying."

"Altogether, we felt the outlook was bad for European business. So we started in to liquidate our European accounts. We cut prices and sold our stocks out below cost wherever it was necessary. We felt it was better to take a loss than to be tied up with a long list of frozen credits. We are about liquidated now and ready for the new business that is showing signs of developing."

Europe Going Back to Work

"The best sign is that Europe is going back to work. For a time the people of Europe felt that the situation was hopeless. They couldn't see any use of working and they just waited for something to happen. But they have begun to realize that they have got to go to work and business is starting up again."

"France is humming. The Government is doing a lot of work. The railroads are building and there is extraordinary activity in the devastated regions. The Government reports show only 15,000 or 18,000 people idle in all France."

"England has had a lot of special conditions to contend with, both political and labor conditions, and there is a tremendous amount of unemployment there. But England is getting back to work. Belgium is probably the most prosperous and industrious of all the European countries. Germany has a surface appearance of great prosperity, but I look for a big smash there, the biggest she has ever seen. Sweden has got a big readjustment yet, and the people are in a riot of spending. But they are going to get it and get it hard. Norway depends almost entirely on shipping, and she is suffering badly. The banks are carrying many of the biggest Norwegian concerns to keep

them from going to the wall. Denmark is better off because she is largely an agricultural country, but outside of agriculture her business is dead. In Turkey there is lots of activity, but very little money. It is a case of barter. Everybody is trading merchandise, and very little cash changes hands.

Exporter Has Complex Problem

"You see how it is with the exporter. Every country where he does business

presents its own problem. The exporter has to look ahead at world conditions and he has to look at each country as a special problem.

"But he has to look ahead. He has to forecast conditions. As I explained in the case of Spain, it isn't only a question of selling goods. We could have sold hundreds of thousands of dollars' worth of orders in Spain, but if we had we should have been tied up with just that much of uncollectible debts that we would have had to carry

for two years or more. That wouldn't be good business.

"Now we have our foreign business liquidated, we can see the revival coming, and we can put our factories to work on what we can foresee will be a steady, continuous output for our export trade, and we are able to put them to work at a time when the work is needed here and when we can buy our materials to advantage.

"That is what you get by looking ahead. The look ahead is the difference between success and failure."

November 3

Charting a Big Business Through a Price Decline

An Interview by Fred B. Pitney

"When high prices and a large demand for goods, which constitute prosperity, are based on an accumulation of permanent capital and the spending power which comes from national thrift, prosperity has a solid foundation and may, barring catastrophes, be expected to continue for a considerable time," said E. M. Herr. "But when prices and demand are based on a débâcle of permanent capital and a period of universal destruction, then a crash is inevitable and the business man's problem is what to do to weather the storm."

Mr. Herr is president of the Westinghouse Electric and Manufacturing Company, one of the big industries of the country, and he has brought it successfully through the depression, due to correct economic thinking backed up by good business management. He was describing the methods the Westinghouse company took to weather the storm.

"When I came back in June, 1929, from a trip to China and Japan," he continued, "a general survey of the business situation showed me that the fundamentals were unsound. We were crowded with orders, booked away ahead, our customers were clamoring for their goods, we were pressing for our raw materials, pressing for machinery and new construction, prices were high, and the demand was enormous. There was every evidence of the greatest boom the country had ever known and apparently no end in sight.

"But when you took your eyes off your own immediate business and had a general look around, you saw in the first place that prices were far and away too high. Then, the whole thing was too feverish. There was too much excitement, too much demand for goods at any price, with too little thought of how the load of high prices was to be distributed and carried in the future when the fever had subsided. The whole proposition was too speculative.

The Foundation Bad

"Then you looked underneath at

what was the foundation for these high prices and enormous demand. And you saw that the structure was built on the destruction of permanent capital. The world had been through a period of six years of destruction of buildings, factories, machinery, houses, agriculture, all that represents permanent capital. Europe was wiped out industrially. And the world was trying to replace by magic what had been lost and destroyed.

"It can't be done by magic. Capital and industry grow by thrift and hard work. The prosperity of 1919 and 1920 was a false prosperity. The foundation was not there and the crash was inevitable."

"I began to try to pull in and hold down. But it was only possible in a very small degree. We couldn't turn down our customers and refuse orders. We had to meet the demand and to do that we had to go into the market and buy at current prices.

"The result was that we carried big inventories and because of our orders booked ahead we had to buy ahead. The first tremors came in October and November, 1929. I closed down harder than ever then. We bought nothing that was not absolutely essential. Still it was not possible to clean out the inventories. We had the orders ahead and we had to prepare to fill them.

"When the crash came we stopped all buying of all kinds. The material that we had bought ahead we accepted, but we didn't buy any more. Lots of people cancelled their orders, but it didn't seem to me to be fair. The men I was dealing with were in the same position we were. If I had cancelled my orders they would have had to cancel, and if the movement had spread we might have had a panic like 1907.

Held Down on Buying

"No, we accepted what we had bought ahead, wrote down our inventories, and filled our orders. We were fortunate in having orders for our goods booked ahead and very few of our customers cancelled on us. Those who were in a bad position we compromised with, making terms that were fair to them and fair to us.

"What we did was to hold down on buying as hard as we possibly could in anticipation of the crash which we saw was inevitable. By doing this we were not able to come to the crash free from high-priced inventories, but we had held our inventories down to the limit and we didn't have to take the loss we must have taken if we had bought with the same freedom in the last half of 1929 that we did in the first half. Everybody had to take a loss, but we saw the crash coming and kept our loss down. That was the story."

"In managing your business do you find that business statistics and charts are of value to you?"

"Oh, yes. We make a great deal of use of such material. We have a statistical department and an extensive clipping bureau and we take several statistical services. We chart price trends, production and the money market, and keep a close watch on these things all the time. All of these services, charts, and tables are passed around among our executives to keep them constantly up to date on conditions and help them to form their judgments. The business man can't manage his affairs solely on hunches. He must have the facts. Business is too complicated a matter for any man to try to get along without the latest and most complete information."

"Business runs in a regular order. The length of the periods of prosperity or depression may vary, but the order doesn't. Depression follows prosperity when prices get too high and inflation has gone too far. There must be deflation then, which is to say depression. And out of depression prosperity grows again as a result of lowered prices and accumulation of buying power through thrift and hard work."

"I think we have come now to the turn from depression towards prosperity, but I think the revival will be slow. We won't have a boom next year, and it is lucky for us that we won't. If we were to have another big boom in the next two years, we would have a crash afterwards to which this one would be child's play. But if we have a gradual building of prosperity, we can look for a sustained period of good times."

November 4

Lessons Learned by Du Pont Co. In Recent Slump

The experience of a great company whose statisticians foresaw the crash, but whose sales, production, and purchasing departments saw only an everlasting boom.

An Interview by Fred B. Pitney

The business depression from which the country has been suffering has taught the Du Pont company two lessons. The first lesson is the value of economic research and a comprehension of the fundamental principles of the business cycle as an aid to business management. The second lesson is the necessity for a single executive head as the final authority in big business management. Committee management is all very well, in the Du Pont company's experience, in boom times, but it falls down badly in the crisis—or more exactly, when the crisis is approaching.

An official of the General Motors Corporation, a Du Pont subsidiary, told the story.

"I became interested in the bearing of economic research on business management in 1917," he said. "I was with the Du Pont company at that time. We put in a research bureau and began to gather and study statistics on the business situation. Pretty soon we enlarged the bureau and began to prepare and distribute to the executives a monthly summary of general business conditions with a brief forecast."

"We came up to the boom times of 1919 and 1920. Our research bureau was constantly and insistently warning us that the break was coming. But our executives couldn't see it. We had three big factors to contend with that it was almost impossible to control."

"There was the sales department. It was booking orders away ahead and it couldn't see any reason to think a crash was on the way when orders were so far ahead of production."

"Then there was the production department that couldn't keep up with orders and was constantly calling for new construction and more material to work with. It couldn't see a crash under way when it couldn't keep up with the demands made on it."

"And there was the purchasing department, that saw prices for materials steadily rising and could readily foresee the time when the margin of profit would be wiped out, if it didn't lay in big stocks ahead. They couldn't see a crash in the face of rising prices."

Statisticians Saw Trouble Ahead

"The statistical department could see the crisis coming. By comparing

present conditions with past booms and crises it could see that the time was rapidly approaching when the boom would break with a big crash. It warned us insistently.

"But we were up against committee management. Each committee had its own point of view. Sales insisted on the orders ahead. Purchasing couldn't see anything but rising prices."

"A few of us could get the lesson taught by the research bureau, but we were outvoted by the optimists. And there was no one man at the head who could take all the factors and coordinate them and issue final orders. We who could see the crash coming were able to exercise some control, but not enough. We kept down stocks and inventories to a certain extent, but we couldn't do anything like that. One executive at the head could have imposed his will on all the subordinate executives, and whereas we did very well, considering, we didn't make a record to write songs about."

Abolished Committee Management

"But we learned a lot. We learned the value of economic research and we have enlarged our statistical work. And we changed the Du Pont organization and did away with committee management."

"That experience teaches another thing," he continued, "and that is that business can never be made a thing of purely mathematical calculation, very fallible factor of human judgment. You may have the most complete statistics that can be gathered, and in the end it comes down to the judgment of the man who reads the statistics."

"The difficulty we are finding now is how to apply the results of economic research to the management of a particular business. What we have now gives us the general trend of the business of the country. We can form an estimate of where the country is in the business cycle. What we need to know is where our own particular business and our own company stand. We need to tie our general view to a particular forecast."

"We need an estimate of probable sales over a period of time; an estimate of collections, whether credit must be long or can be short; an estimate of our cash position with relation to the collections estimate; an estimate of costs, prices of raw materials; and an estimate of production, costs, and quantity. All this must be not for the present, but as a forecast."

Only Incomplete Statistics Available

"So far, we have not found where we are going to get the figures for those estimates, the statistics. We can see where some of them are to come from incompletely. But with the best we can do, it will still re-

main in the end a matter of the human factor, the question of the judgment of the man who reads the statistics."

"All that I feel I can say at present is that economic research gives a base on which to rest a judgment. And economic research has succeeded as yet in giving us only the figures needed to indicate the position of the country as a whole in the business cycle. We are still groping for the information needed to be able to make a sufficiently accurate forecast for a particular business."

"Take the case of the automobile business. For all of our economic researches, I don't think General Motors did any better or any worse than the average automobile concern. We all got hit."

"Right up to the end of 1920 the outlook was all for a continuance of the boom. Statistics proved that there was going to be a break. Warning after warning was issued of what was coming. But in spite of all the warnings the orders for automobiles at the high prices continued to pile up. No one heeded the warnings and the country continued to plan to buy automobiles and to order them long in advance."

"We couldn't ignore the orders. We couldn't refuse business and draw out of the market. We might as well have liquidated our business and wound up our affairs. The only thing we could do was to prepare to fill the orders, buying as little in advance as possible. But being so far behind on production, we had to buy ahead."

"All those problems are part of business management, as well as studying the statistics on the general situation of the country. Every business is not only a part of the whole but individual."

Big Inventories Remained

"The result was that the automobile business of the country came up to the crash with huge, high-priced inventories and overflowing order books. The crash was followed by a general cancellation of orders, but the inventories remained."

"And there you are. Economic research showed us that a crash was inevitable. The special problems of our own business involved us in it. We suffered neither more nor less than the average of the industry. Whether we can ever get the specialized information that will enable us to keep out of such entanglements, I don't know. What I do know is that we can see its value, if it can be found, and we are searching for it, and whether we can get that special information or not, we know that it is invaluable to us to know the general trend of business and the position of the country as a whole in the business cycle."

November 5

"Guessworkers" Do Not Survive Business Crisis

Preparation for business life should include study of the Business Cycle as a compulsory feature. Widespread understanding would help to modify extremes of inflation and depression.

Sam A. Lewisohn

Of Adolph Lewisohn & Sons, Mining and Industrialists.

(Interviewed by Fred B. Pitney)

"One of the most surprising things about the business cycle," said Sam A. Lewisohn of Adolph Lewisohn & Sons, "is how few people know anything about it. And yet it is a constantly recurring phenomenon of the business world. Though many of the underlying causes of cycles are obscure, the general course of events that take place is comparatively simple and would be easily understood by the average business man.

"There is nothing remarkable about a period of business depression. Prosperous or boom times are not the normal condition of affairs, with depression or hard times an unforeseeable calamity. The law that depression follows prosperity would seem from past experience to be almost as inevitable in its action as the law of gravity.

"The really remarkable thing about hard times is that so few business men realize in periods of prosperity that hard times are bound to come and make provision against them. And that very lack of realization makes the hard times harder, makes the recovery more difficult and makes them last longer and the recovery slower.

"Yet these conditions could be so much mitigated if the average business man only had a little knowledge of economic principles. We ought to teach economics, and especially a knowledge of the Business Cycle, in our schools as a compulsory study, instead of, as we do, sending our average young man out to enter the fight for life with practically no preparation for what he is going into.

"The great captains of industry, the successful managers of big business, do, to a certain extent, at any rate, understand the principles and theory of the Business Cycle. Consciously or

unconsciously, they conduct their businesses on sound principles. That is what makes them successful. But the average business man does his business by guessing from day to day. He doesn't think of the underlying principles or see things from a long-range point of view, and many of them would laugh at you if you told them there was an underlying principle.

Understanding Would Modify Curve

"I don't mean to say that a general understanding of the Business Cycle would eliminate depression and keep the country on a general level of continuous prosperity. We will, perhaps, have to wait for the millennium for that. But I do mean that a wider diffusion of economic knowledge would make the curves of business less sharp, would keep the peak, perhaps, from rising so high; would make the high level of prosperity last longer, and would prevent depression from going to such low levels and lasting so long.

"It is just as with an over-temperamental person. We all have moods which make life interesting, but when a person gets too high and then too depressed we consider the condition pathological.

"In Europe economic knowledge is more widespread than here and in Europe the average Business Cycle ranges through a period of from seven to ten years, while here the period varies from three to ten years. Doubtless there are temperamental differences that account for this in part, but the point I want to make is that a knowledge of economic principles would enable us to exercise a wise control over our temperamental flights, instead of running wild.

"The wise business man who is familiar with the principle of the Business Cycle knows that depression must inevitably follow prosperity, and within a comparatively brief period, a few years at the best. There is a great temptation to unlimited expansion in prosperous times to put off the day of saving and economy. It is part of our national temperament. We are over-sanguine. But the wise business man looks forward in prosperity to the inevitable reaction and lays aside a

fund for insurance against the hard times to come.

Experience of the Guessworkers

"The temperamental business man, who works by hunch and by guess, finds himself, as he euphemistically expresses it, overextended when the crisis comes at the end of prosperity, and he goes to the wall. But the wise business man, who understands the principle of the Business Cycle and acts on it, finds himself not only prepared for the period of depression, but ready in those hard and dull times, when prices are low, to expand his facilities, do his new construction work when building is cheap, and contract far in advance at low prices for his stocks of goods. He will not only weather the hard times, but he will be prosperous above the general level in good times, because he has prepared for prosperity as he had previously prepared for depression.

"That is the advantage to the individual of conducting his business according to a definite and easily understood economic principle. The advantage to the community if all business, or the major part of the business, of the country could be conducted under that principle is too obvious to need comment.

"Now, I don't mean to say that any man can make an accurate forecast of just when hard times will come or when prosperity will return after a period of depression. But he can realize that both are inevitable. He can do his new construction in hard times at low prices, or he can contract for it ahead during periods of depression, when prices are low, and he can contract for his stocks ahead during depression periods.

"I don't mean that he can foresee all his wants. But he can foresee a large part of them. And by foreseeing them and giving out his contracts during hard times he will contribute to hastening the return of prosperity, he will help prevent the depression from reaching such a low point, and he will help make prosperity last longer.

"If the average man, through a little study, will come to understand that there is a definite principle underlying the general course of business over a period of years, he will soon come to the further realization that the combination of his individual efforts with the individual efforts of thousands of other business men can go far towards regulating the progress of the Business Cycle."

November 7

How a Big Toy Firm Handled Itself in Anxious Times

J. Lionel Cowen

President Lionel Manufacturing Co. (Interviewed by Fred B. Pitney)

Before the war the American toy-making business was negligible, and since the war it has again had a hard time. One of the reasons for the hard times since the war was the mushroom growth due to war conditions, which put it on a solid foundation to meet the depression of this year. Some American toy makers, however, had the vision a year ago and two years ago to see what was on the way for business, and have come through with flying colors. One of these was J. Lionel Cowen, president of the Lionel Manufacturing Company.

Mr. Cowen, in telling of the experience of his company, said: "We ought to start this story at the beginning, which is back in 1913. Up to the beginning of the war only about 10 per cent of the toys sold in this country were made here. Germany had a monopoly of the American toy trade, though there was some competition from other countries. But Germany was the chief source of supply.

"In 1914 American merchants were still loaded up with German toys, but in 1915 no German toys came in and American toy makers got their first real chance. By 1915 the situation in the American toy trade had exactly reversed itself. For 1915 and the next three years 90 per cent of the toys sold here were of home manufacture.

"Then came the armistice, the resumption of imports, foreign competition, and the business of American toy makers began to dwindle so that this year only about sixty per cent of the toys sold in America will be of home manufacture.

America Makes Better Toys

"If it were only a question of price, the American toy manufacturer would be driven entirely out of the market again. But the American makes a better and stronger toy than the foreigner. In many cases he does not put quite so much finish on his toys, but where he has the edge is that he puts stability into them. His toys cost more, but the dealers and the people have learned that they get more for their money. So the American manufacturer has held a very considerable part of his market by the value he gives.

"Now, we come to the biggest blow the American toy maker had to stand. That was the business depression that swept over the country with such startling suddenness.

"You see, many toy makers figured that they had captured the American market for good and all. They laid in their stocks of material and made

their manufacturing plans on that basis. So they came up to 1920 with the biggest inventories in their history. "Now, here was the situation with our company as it developed in 1920. We had every reason at the beginning of 1920 to look forward to the biggest year we had ever had. As a matter of fact, we did have our biggest year, but at the beginning of 1920 it looked as though it was going to be a whole lot bigger. We were sold out by the end of March, with orders still piling up.

"It looked like it was up to us to double our output. But it was about that time we had the first signs of the storm. Prices were way up, then, you remember, and I began to notice a little cessation of buying around the country. I don't mean that our orders fell off, but there was a falling off in the retail trade. There began to be price cutting. Then, you remember, John Wanamaker sprang his first big price slashing sale. After that, overall parades were held in several cities.

"I didn't feel that I needed any more signals. Things had gone far enough. We had reached the top and were ready to start on the down grade. I said, 'We won't go out for any more orders. We will be satisfied with what we have. We are going to have some cancellations of orders already on our books and we will take just enough new orders to cover the cancellations.'

"In this business we have to buy our raw material in advance. I had a lot of orders in, of course. I didn't cancel them. I didn't cancel an order. But I made a new arrangement about them. I went to the people I had ordered from and I said, 'I'll take all this stuff I have ordered from you. I won't cancel a pound. But these orders are for future delivery, and you must give me the stuff at the current price on the date of shipment.'

"They were more than glad to make such an arrangement. And that let us out of carrying big, high priced inventories. We used up every pound we had bought in advance for our 1920 business. We didn't oversell our market and find ourselves with a high percentage of cancelled orders after we had the goods all made up, and we didn't have to make enemies by insisting on our customers taking goods that we knew they couldn't sell.

Feeling the Way in 1921

"The same policy has brought us through this year in splendid shape. We have done just as much business this year as we did in 1920, and it is all done on a sound basis. We stopped going out after business in 1920 because we felt anything more would be shaky; it would be an over-load. This year we haven't tried to crowd the market. We have been conservative and felt our way, and I

am glad to say that we are coming up to the end of the year with all signs pointing to the turn of the tide in business. By the end of the year we will have equalled our 1920 record."

"The upturn having begun, what is going to be your policy now?" "When prices are down is the time to buy," Mr. Cowen replied. "I figure prices are just about at the bottom now. In fact, I think they are going to begin to go up. But any one who buys now will make money on his purchases, no matter whether prices are not quite at the bottom or whether they have begun to go up, because they are going to go up a good deal more. So the man who buys to-day will have the edge on the man who waits a few months and as a consequence has to pay a higher price.

"Just to prove my belief, I will tell you that a few days ago I bought 1,000 lions of brass. I don't need it to-day, but I will need it next year, and I will have it very close to the bottom of the market, if not exactly at the bottom. And all you need is to buy pretty close to the bottom. It is mighty easy to overreach yourself by trying to grab the last penny."

"I look for much better business next year than we have had this year, and I'll buy anything now, if the price is right. Anything I am going to need in my business next year, that is, the way it looks to me, we are having a little boom just at present, but that will work itself out by the end of the year. Then we will have a temporary recession that will last through the first two or three months of next year. In the spring things will open up again and from then on we will have steady progress until inflation once more goes too far, when we will have another depression.

"We are on the upturn now and the thing to do is to take advantage of the prosperity that is on the way to prepare for the storms the future holds."

"Did you have to cut wages in order to come through the depression?" "I didn't have the heart to do it. We thought it over and came to the conclusion we would have to make a cut. We even set the date. But when we came up to the date fixed, we put it off and set another date. We did that three times and we haven't cut wages yet and don't intend to.

"The workingman has already lost his overtime and that's about all the cut he can stand. Living costs too much to take any more away from him. You must remember that in all these big amounts per week you hear of workmen getting in the boom years overtime was figured in. When his overtime is cut off he is pretty nearly cut in half already, and I haven't the heart to cut him any more."

Business Needs Right Men on Job Task Is to Find Leaders Who Will Not "Flutter"

By Matthew C. Brush

Senior Vice-President of the American International Corporation and President of G. Amsinck & Co., Inc.

Interview by Fred B. Pitney

Strangers call Matthew C. Brush "Mr. Brush." His friends call him "Matt." Those who work for him are his friends. It is part of his theory and practice of successful business management that those who work for him shall in reality work with him and be his friends.

Matthew Brush is a senior vice-president of the American International Corporation and president of G. Amsinck & Co., Inc., the latter as part of his A. I. C. job. He has in his day punched the time clock in the shops of one steam railroad, and afterwards became vice-president and then president of another. He has been president of the Boston Elevated Railroad, and he was the man who led the Hog Island team that produced 122 first-class ships.

As this greatest single enterprise in the history of shipbuilding neared completion of its programme, Mr. Brush devoted more and more of his time to the other A. I. C. interests, including the Amsinck organization, which for nearly three-quarters of a century has been engaged in trading with Central and South America. This change from a definite engineering problem of large-scale production to the commercial field was made in the spring of this year, after depression had struck its heavy blow at business. Hence his statement, "I didn't come into this thing until after it was all over. I can't tell you how business foresaw or failed to foresee the crisis, prepared or failed to prepare to meet it, and came through or failed to come through the depression. I wasn't in it. I am the repair man. Now, what do you want me to talk about?"

Only, Mr. Brush put it much more picturesquely than it is related here. He admitted us into his friendship and talked to us as "Matt" Brush. "Excuse my language," he said. "I was brought up in a roundhouse."

"We like it," we replied. "We were brought up in a hard-rock mine. You open up possibilities. We won't get history from you. We will get action. Tell us what you are going to do."

The Task Is to Find Men

"As I see this thing," he said, "the

job is reorganization, finding the right men for the work to be done."

He picked up a card from his desk and laid it in the palm of his hand. Then he turned his hand so that the card was in a perpendicular position and moved his hand rapidly across the desk. Pressure held the card against his hand so that it did not fall.

"In the boom years," he explained, "lots of men came to the front and were pushed ahead by the pressure of the business behind them. They didn't make the business. The business made them."

He swept the card across the table again, but his hand stopped short half way, and the card fluttered to the desk.

"When business went on the rocks," he continued, "those men dropped. They weren't big enough for the jobs. They couldn't hold their places without the pressure behind them."

"The answer is that business needs a liquidation of men as well as a liquidation of credits. If you get the right men on the job the credits will be liquidated."

"You have got to remember that in business the personal equation is a tremendously important factor. Business is not a mathematical problem, but the judgment of men."

Not Only Knowledge, but Courage

"Take this question of statistics and economic research. I don't want to minimize their importance. They are of great importance and great help to the business man who knows how to read them and use them. The danger is that they will scatter your thoughts over too wide a field, when what you need is to concentrate on a specific problem. Then, after you have got the message they carry, you must have the courage to act on it."

"I'll give you an example. There's an old chap over here in a certain staple business. He bought his goods at 21 cents. They began to go down. He saw they were going lower and sold at 17 cents and took his loss. Later on, when the goods began to go up again, he bought in at 9 cents and sold at 15 cents. On the whole transaction he made a nice profit."

"There was another man who bought at 21 cents. The prices began to go down and he saw that they were going to keep on going down. The situation was perfectly clear to him; no

possibility of a doubt. But he didn't have the courage to sell and take his loss and get in again. He held on until he had to sell at 3 cents, and then he couldn't get in again."

"Economic research is extremely valuable, but you must be able to apply its results to your particular problem and have the courage to act on what it teaches."

Responsibility of Ultimate Head

"When it comes to managing a particular business, I don't believe in either the committee form or in the single executive head. I believe in a combination of the two, but I prefer council to committee. The two words may mean the same thing, but they don't carry the same meaning to me."

"My idea is an executive head who takes the ultimate responsibility and makes the final decision, but who makes the decision after consultation with his council, which should be composed of the chiefs of the principal bureaus and departments in the business. When I was president of the Boston Elevated I considered that I was personally responsible for every accident that occurred on the road, because the choice of the heads of departments was my choice, and it was my business to pick men who would choose the proper subordinates. On the other hand, we never made an important decision that was not thrashed out, and often fought over bitterly, in the council. After we had fought it out, the final decision was with me. We tried to convince every man on the council and have the decision unanimous, but if it was not unanimous, if some fellow held out, even if it was the man whose work was affected most by the decision, he had to give his loyal cooperation in carrying out the decision. That was an invariable rule."

Loyalty in Carrying Out Decisions

"Down at Hog Island at the first meeting after the council was formed the first paragraph on the minute books says:

After the freest and most frank discussion, with opportunity for each and every man directly or indirectly concerned to express his opinion or judgment on any matter of policy or detail of operation or construction, the decision must be rendered by the responsible executive head, and this decision having once been determined upon the officers and any others concerned shall loyally carry it out, even though it be against their own judgment, until conditions to their knowledge have in any way, shape, or manner changed which in their judgment may possibly change the executive's decision, at

which time it shall not only be their privilege but their duty to again open up the question.

"We are going to adopt that resolution at the first meeting of the council of Amsinck & Co., and we are going to run this business on that principle. My first job is to pick the council, and then I have to sell myself to them so that I will get their loyal cooperation, and they will come here to my office and fight me to the

last ditch on any proposition they don't believe in. But after the decision is made they must fight just as hard to put the proposition over."

"Business management is largely a matter of picking men. If you can pick the right men their combined judgment after they have fought a question over will be right ninety-nine times in a hundred."

"Now, you want me to tell you what I am going to do. I can't tell you. As

questions come up to me, I'm going to try to meet them with the right answer. After it is over, if I've found the right answer, I'll take all the praise you want to give me."

"On the contrary, Mr. Brush, you have told what you are going to do. In your own words, 'the big thing is to know when to let go and take a fresh bite,' and as you have described it, you are going to take a fresh bite."

"Well, leave it that way."

How the Business Signals Read To-day

This summary presents in concise form the general trend of opinion on business conditions about the latter part of October, 1921. A long list of bankers was asked to answer these questions:

- (1) Do you anticipate pronounced improvement during the rest of the year?
- (2) If not, what kind of business do you anticipate?
- (3) When do you expect pronounced improvement?
- (4) What are considered the chief retarding influences?
- (5) How do stocks on the shelves of retail merchants compare with normal?
- (6) When do you expect credit conditions to return to normal?
- (7) Of commercial loans outstanding October 1, approximately what percentage represented frozen credits—that is, renewals or extensions of loans made more than twelve months ago?
- (8) Approximately what percentage of frozen credits outstanding July 1 remained unliquidated on October 1?
- (9) What are the prospects for further liquidation of frozen credits in your district in the near future?

Wholesale and retail clothing, hardware, and grocery merchants were given this list:

- (1) Do you anticipate pronounced improvement in business this year?
- (2) If not, what kind of business do you anticipate?
- (3) When do you expect pronounced improvement?
- (4) What do you consider the chief retarding influences?
- (5) How does the value of your merchandise on hand October 1 compare in percentage with one year ago? With two years ago?
- (6) How does the physical quantity of such merchandise compare with one year ago? With two years ago?

From the telegraphic replies as they were originally printed in the *Evening Post*, the following statement has been deduced:

The third part of this series, as outlined in the introductory remarks, gives the reading of the business signals as they stand to-day (about November 1, 1921) by the leading bankers and business men of the principal sections of the country. What they have to say is summarized here.

In the Middle West

Ten bankers see no signs of pronounced improvement this year, but all look for gradual improvement. Two think there will be pronounced improvement in six to nine months. The others think conditions will work slowly back to prosperity, but set no definite limits.

In the East

Three bankers see no signs of pronounced improvement this year. One thinks there will be slow improvement

this year, and two think that slow will grade up to moderate, while one thinks the improvement will be spotty. Two expect pronounced improvement in the second quarter of next year, while one thinks pronounced improvement is two years away. The other doesn't expect a change until the tariff and tax questions are disposed of.

In the South

Six bankers expect a pronounced improvement this year, three do not, and one thinks the improvement will be spotty. Three think there will be little change in conditions for the remainder of the year, while five expect steady progress. Two expect a marked improvement after the first of the year and two others, while not setting a definite date, look for marked improvement in the near future. Two others

set the return to prosperity after the next crop and one puts it a year away. Three think progress will be slow.

In the Northwest

Four bankers do not look for any pronounced improvement this year, one thinks there will be some improvement this year, but not a great deal, and two expect poor business for the remainder of 1921. One thinks the situation will be spotty. Two look for a pronounced improvement next spring, and three not until next summer.

In the West

Two bankers see no hope of pronounced improvement this year but all four agree that there will be gradual improvement. One puts pronounced improvement a year away and one places it after the next crop season.

On the Pacific Coast

One banker expects pronounced improvement this year, four see no hope for this year, but they all look for a gradual and continuing improvement in conditions, and one expects to see a pronounced improvement by spring. Two do not expect a pronounced improvement until Congress settles the tariff and tax questions.

In Canada

One bank looks for a continuance of depression in Canada for another year.

These reports from forty-three banks scattered well over the country show that the South is the most optimistic section and the Northwest sees things in the darkest colors. The consensus for the country is that the upturn has begun, but the South is the only section that takes a really cheerful view for the remainder of 1921. The Middle West is perhaps the most depressed (outside of the Northwest) about the rest of this year. But the Middle West looks forward hopefully to 1922. Practically the entire country looks to 1922 to show a marked return toward prosperity. The variations are chiefly as to how early in the year the up-swing will be in full motion. The majority favors a steady ratio of improvement through the first half of the year with a comfortable measure of prosperity by the end of the third quarter.

Among merchants reports were received from five wholesale dry goods firms in the Middle West, one in the South, and one in the Northwest. They all reported improved business at present with prospects of a steady ratio of improvement continuing through the remainder of the year. The firm in the South expects a complete recovery to normally prosperous conditions to be slow, while the one in the Northwest expects a pronounced improvement by next spring. The Middle Western firms see gradually improving business until after the next crop season, when they expect pronounced improvement.

Wholesale grocery and hardware firms were equally optimistic. Reports were received from three in the East, one in the South and four in the Middle West. All reported prospects for steady if slow improvement in business for the remainder of this year and the first months of 1922. Estimates for a reasonable expectation for a pronounced improvement varied from next spring to next fall.

Retail dealers take a less cheerful view than the wholesalers. The field surveyed covers the retail clothing, grocery, and hardware business, five concerns reporting from the Middle West, four from the South, and five from the East. The Middle Western firms look for fairly good business with gradual improvement during the remainder of this year and the early months of 1922. But only one foresees a pronounced improvement by spring. The others think any considerable degree of improvement must wait on the settlement of the tariff,

tax, and transportation problems, with railroad affairs bulking large. In the South improvement is expected to be gradual with much depending on next year's crops and prices. The East finds some increase in business now with prospects for gradual improvement. Two firms expect good business by spring, and one expects pronounced improvement by next summer.

Bankers and merchants are thus in agreement that the upturn has begun. There is considerable divergence of opinion as to the time when there will be pronounced improvement, with the South the most optimistic section of the country, and the Northwest the least cheerful, but there is substantial agreement that there will be no sudden boom and that the improvement will be gradual. The average would fall on next summer as the time when the general business of the country is most likely to feel once more the enlivening effects of a prosperous era.

Freight rates, tariff, and taxes are the influences most widely considered to be retarding the business revival. After them come wages and prices. There is a general demand for lower freight rates, lower wages, and lower prices. In the Middle West, South, and Northwest farm prices are given an important place as a retarding influence. Prosperity is not expected in those sections until the farmers can get better prices for their products. In the grain and cotton States the European business situation is held to be of particular importance. Disarmament and prohibition are both mentioned among the retarding influences. Disarmament is desired, while pro-

hibition is considered inimical to prosperity.

With few exceptions retail stocks are credited with being depleted throughout the country. Estimates of the value of retail stocks, as compared with a year ago, vary from 50 to 80 per cent. In very few cases are they estimated as being of equal value with a year ago.

The credit situation is spotty, but in general it may be said that reports from all sections show improvement. Commercial credits are in much better position than agricultural credits. With the exception of the cotton credits of the South agricultural credits are far behind in liquidation and bankers generally expect liquidation of agricultural credits to be a slow process.

The estimates of the percentage of frozen credits included in the commercial loans outstanding October 1 varied so widely that the only way to arrive at a figure is to average them. The estimates of eighteen banks averaged thirty-nine per cent as the proportion of frozen credits in the loans outstanding October 1. Arriving at the figure in the same way, sixty per cent of the commercial loans outstanding July 1 were still unliquidated October 1.

The prospects for further liquidation are considered good as a general rule, with agricultural loans again lagging behind commercial loans. Several estimates fix six months as the time needed for full liquidation of commercial loans, while the average of time considered necessary for the liquidation of agricultural loans does not exceed a year.



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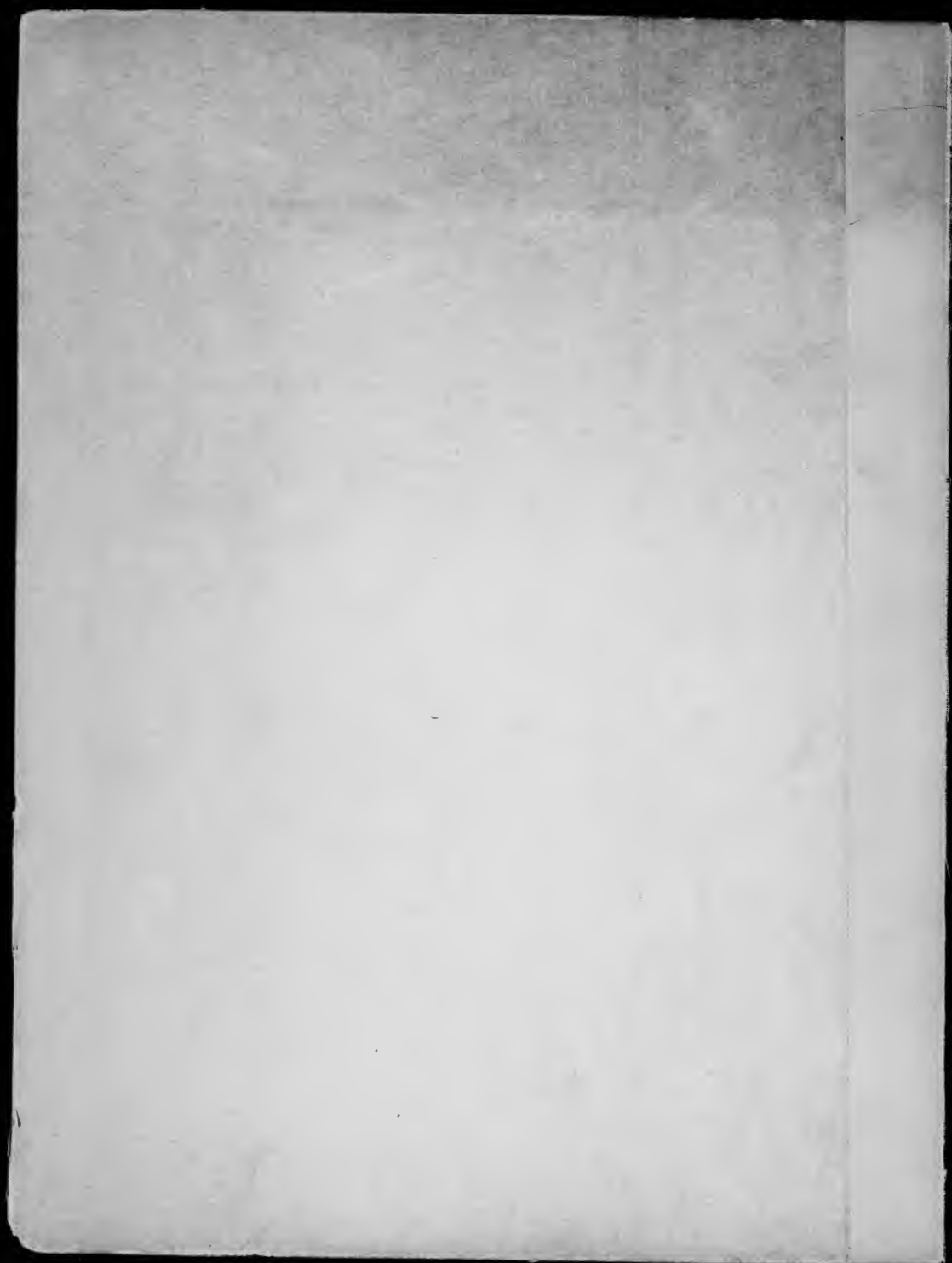
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